Pasquale Orsini

Studies on Greek and Coptic Majuscule Scripts and Books

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Pasquale Orsini

Studies on Greek and Coptic Majuscule Scripts and Books

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Introduction

The essays collected in this volume are the result of several years of research into formal Greek and Coptic majuscules and were originally published in Italian.[1] The present English translation, which will make these researches more widely available, has also enabled me to make some changes and updates, made necessary both by the progress of research and the requirements of editorial uniformity. However, the principal purpose of the publication is to provide a critical survey of some of the unresolved problems in the study of Greek and Coptic majuscules. I was trained as a palaeographer within the Italian tradition, which—in the specific field of Greek majuscules—founded the modern approach to their study, introducing methods of analysis, terminology and historical interpretative paradigms. Before the publication of Guglielmo Cavallo's *Ricerche sulla maiuscola biblica* (1967) the study of Greek majuscules was largely based on impressionistic judgements and on the analysis of individual letter forms; Cavallo's study introduced the methodology which Latin palaeography had elaborated in the 1950s and 1960s, which brought together a consideration of the material, structural and formal components of a given script with the historical and dynamic reconstruction of the graphic signs as they evolved. In short, scholars of Greek palaeography began to ask themselves the same questions which Armando Petrucci[2] had said were essential for anyone who undertakes the study of written documents: What is this document? When was it written? Where was it written? How was it written and by whom? And why? The immediate objectives of palaeographical study are undoubtedly to read and decodify the signs on the page, and to date and place the production of written documents, yet it must also take into account the historical dimension of graphic forms. And when we do, then alongside the standard components of palaeographical analysis (structure, *ductus*, form, module, writing angle, angle of writing slope) and the criteria for classifying scripts (everyday, formal and informal, stylistic class, style, canon)[3], the historical and social aspects of written documents must also be examined (the makers and those for whom they were

1 Orsini 2008b; Orsini 2015b; Orsini 2005a, 165–211; Orsini 2008a; Orsini 2016; Orsini 2013 (revised and adapted); Orsini 2010.

2 Petrucci 1989, 18–21; Petrucci 2002, VI–VII.

3 Crisci / Degni (eds) 2011, 19–29. It should be noted that this book uses palaeographical terminology employed in the Italian school of Greek palaeography studies, which differs in some respects from English and French usage: see *Glossary of Palaeographical Terms employed in the Text*.

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writing, the social spheres in which the documents circulated, the purpose of the documents in terms of the periods, places and social contexts in which they were produced).

This complex approach has led to the history of all the formal Greek majuscules being redefined and rewritten: round majuscule (Cavallo 1967b), Biblical majuscule (Cavallo 1967a; Orsini 2005a), Alexandrian majuscule (Cavallo 1975; Bastianini / Cavallo 2011), upright pointed majuscule (Cavallo 1977a; Crisci 1985), sloping pointed majuscule (Cavallo 1977a; Orsini 2016), liturgical majuscule (Cavallo 1977a; Orsini 2013). Between the late 1960s and the 1980s this approach, even though certain concepts and principles were at times applied too rigidly,[4] undoubtedly produced results of incomparable value for the history of writing between late Antiquity and early Byzantine humanism. However, more recently some of the underlying assumptions of this methodological approach have been called into question, taking the criticisms of it which had been made since the 1970s, with the initial attempts to make the study of Greek majuscules more *scientific*, to their ultimate conclusions.[5]

This *revisionist* debate focused on the conceptual categories of 'stylistic class', 'style', and 'canon'.[6] It is obvious that such categories are heuristic rather than ontological, as certain scholars have asserted: the scribes themselves did not define the different stages of writing in these terms.[7] When one speaks, for example, of 'canonical Biblical majuscule', a modern category is being retrospectively applied to designate and describe and identify majuscule scripts which reflect various structural and formal *rules* which serve to distinguish it from other scripts. We do not know how the Greeks themselves described their

4 Crisci 2016.

5 See for instance the critical reviews to Cavallo 1967a: O'Callaghan 1968; Parsons 1970; Irigoin 1970; Wilson 1971a.

6 See *Glossary of Palaeographical Terms employed in the Text*.

7 See in particular Turner 1987, 20; Parsons 1990, 22–23; Nongbri 2014, 16, 19–20. Of relevance is Cavallo's recent renunciation of the concept of 'canon' for the following reasons: 'for scripts which are repeated in numerous manuscripts and often over a more or less extended period of time, the term "normative scripts" has been used in preference to "canon" or "canonical scripts" since this expression is too rigid to be applied to graphic forms which lacked a theoretical basis of unchanging rules which had to be adhered to and which even less constituted obligatory models but were instead simply one choice among a range of choices [...] The term "normative scripts" refers to those scripts the characteristics of which create a recognisable imprint over a more or less extended period of time, without, however, confining them within a canon of fixed unchanging rules (it is not by chance that, in order to explain certain variations in a script, scholars are obliged to resort to a sleight of hand in admitting that an evolution takes place within a canon—in effect a contradiction in terms' (Cavallo 2008, 15).

scripts, although we are able to study their writing exercises, which show us that scribes were perfectly capable of making informed choices among a variety of scripts in use at the time. One example is P. Köln IV 175 (LDAB 3239), attributable to a period between the end of the fifth century and the beginning of the sixth century: the same scribe uses a Biblical majuscule on the recto and a sloping pointed majuscule on the verso.

It must be acknowledged that in applying the above-mentioned categories there has been a prevailing assumption that scripts undergo a linear and *evolutionary* development, progressing from simpler to more complex forms, in which manifestations which are more basic in structure and poorer in decorative elements should be assigned to the initial phases of a given script while more complex structures and richer decoration indicate the phase of maturity and decline. In reality, the history of majuscule scripts is more complicated and needs to be related to multiple phenomena: apart from the sheer chronological range of production, the different localities of production and the interpretations adopted by individual scribes must also be taken into account.[8] But information on these matters is often missing: there are no explicitly dated and localised manuscripts—in the Greek and Coptic world—before the ninth century, and only a very few can be dated and assigned to a place of production with any degree of plausibility. Connected to this problem is the phenomenon of so-called 'graphic mimesis', the imitation of earlier and older scripts,[9] which it is not always easy to recognise as such and to value correctly in all the implications of such imitation.

Furthermore, on the issue of individual scribal interpretations of scripts, it must be borne in mind that we know very little about the professional training and subsequent activity of scribes. There are examples of scribes who practised their profession for over forty years. One example is Hermas the son of Ptolemaios (Bacchias, 35–121 CE),[10] whose subscriptions are found essentially unchanged in five documents (dated between 78 CE, when Hermias was 44 years of age, and 120 CE, when he was 85). Another example, mentioned by Revel A. Coles,[11] concerns a scribe of documents whose work can be identified in parts of P. Oxy. LXIV 4441 (coll. IX–X; 315–316 CE; TM 23667), P. Oxy. LIV 3746 (319 CE;

8 Crisci 2016, 139–142.

9 Cavallo 2005, 80–81. See also Nongbri 2014, 19, who records the example of P. Oxy. L 3529, copied in a typical book hand of the first century CE, but including the *Passio* of Saint Dioscorus and not datable, therefore, before 307 CE.

10 Daniel 2008.

11 P. Oxy. LXVII 4608 and 4611; Nongbri 2014, 20.

TM 12252–12254), P. Oxy. LXVII 4608 (*ll.* 1–11; 362 CE; TM 78650) and P. Oxy. LXVII 4611 (col. I; 363 CE; TM 78653), and whose writing shows barely any variation in more or less forty-eight years of activity. In such cases a script learnt in youth has been used for a very long time, indeed during the whole professional career of an individual; we can deduce from this phenomenon that formal changes were introduced very slowly, over more than one generation. These are examples of scribes who worked on documents: it is not possible to state with any degree of certainty that the same applies to those scribes who produced books. What can be said with confidence is that the style and canon of majuscule bookhands are syntheses of the rules followed by scriptoria and stable forms (stable in the sense they do not change quickly) and that the internal changes which occur are nothing more than transformations which gradually come about in everyday writing. In other words there is a process of being open to innovative forms.

From this point of view the phenomenon of the interaction between different styles and canons, whether these are contemporary with each other or not, becomes significant. Two examples examined in the present study can be singled out here: the so-called 'mixed style' (or 'hybrid script' to use the expression in Cavallo / Maehler 1987, 5, 84) and liturgical majuscule. The first is the result of a mingling of characteristic letters from both canonical Biblical majuscule and canonical unimodular Alexandrian majuscule, found in both Greek and Coptic centres of copy and book production, though it was used and developed more extensively in Coptic book production. The second is the result of a deliberate process of elaboration which involved grafting the canons of upright pointed majuscule and Biblical majuscule with the particular style of rounded decorated lettering found in publically displayed and monumental scripts. These two examples serve to show that what today are conventionally termed 'styles' or 'canons' were not in fact sealed compartments but came into contact with each other, both in the person of the individual scribe and within a specific centre of copy and book production, and could be combined to form a new graphic style.

Bearing in mind the problems and the limitations we have described,[12] the fundamentals of palaeographical methodology remain efficacious for the study of majuscule scripts, just as the categories of 'stylistic class', 'style' and 'canon' retain their usefulness, heuristically, in developing a scientific description of the continuum of a given graphic production. There is in any case no real alter-

12 On this matter, see the positions taken by Cavallo / Canart / Wilson / Gamillscheg / Irigoin / Prato 2000 and Crisci 2016, 133–146.

native at present to this approach, unless we accept proposals to return to past models of investigation as new theories for consideration.

In palaeographical methodology, the dating of a bookhand majuscule[13]—in the absence of an explicit date or chronological guide-elements[14]—depends on comparison with other examples of the script which are either dated or can be dated. The comparison must be based on similarities found in the following elements:

1. the general graphic organization (formal and informal script, stylistic class, style, canon);[15]
2. structural characteristics (structure, *ductus*, module, writing angle, angle of slope);
3. individual forms and structures.

It is not correct in methodological terms to compare, merely on the basis of appearance, scripts belonging to different graphic types, because this would ignore the need for there to be some kind of formal relationship linking the scripts which are being investigated. Any comparisons made must therefore be *appropriate*: *similes cum similibus*.

On a theoretical level, there are two kinds of comparison which can be made between the majuscules found in two or more manuscripts: 1) between an undated manuscript and one or more explicitly dated manuscripts; 2) between an undated manuscript and one or more datable manuscripts.

These types of comparison can produce different results:

1. the assignation of an undated majuscule script to the same general graphic environment in which one or more dated or datable manuscripts have been produced;
2. the assignation of an undated majuscule script to a stylistic class for which it is possible to reconstruct in approximate terms the dates when it came into being and when it ended;

13 The situation is different for majuscules used in archival documents, as such texts usually offer precise chronological data.

14 Such as, for example, archaeological data, or the criterion of *rectus* and *versus* for papyrus rolls (a document on the verso provides a *terminus ante quem* for the text copied on the recto; vice versa, a document on the recto is a *terminus post quem* for the text added on the verso), the textual contents, the use of particular diacritical marks, various technical bibliographical data: see Roberts 1956, xiii–xiv; Turner 1987, 18–19; Crisci / Degni (eds) 2011, 17–18.

15 Barker 2011.

3. the assignation of an undated majuscule script to a particular style for which it is possible to reconstruct both the history and the main distinguishing features;
4. the assignation of an undated majuscule script to a canonical or normative script, for which it is possible to reconstruct the system of internal rules and its history;
5. the assignation of an undated majuscule script to a specific scribe whose hand has been identified in other dated and datable manuscripts.

Turning from what is theoretically possible to the reality of graphic production, it has already been mentioned that there are no Greek and Coptic manuscripts (containing literary texts) earlier than the ninth century which are explicitly dated, only ones which are datable. Consequently the history of canonical Greek majuscules has to be constructed on the basis of a few datable manuscripts and a handful of dated manuscripts (for the period from the ninth to the tenth century).[16] In these cases, therefore, it is the historical paradigm which has been reconstructed for each of these majuscules which allows us to insert an undated example of a script into a more or less plausible diachronic sequence. Even more complex is the dating of a manuscript by including it in a 'stylistic class', since this can contain 'expressions which, apart from certain analogous structural elements which justify bringing these expressions together as a single class, can also show differences'.[17] In such cases, it becomes more difficult to reconstruct a coherent chronological sequence; the affinities which can help us to date an undated manuscript have to be sought mainly among the dated or datable documentary material, of whatever kind, which has been assigned to the same 'stylistic class'.

However, it is possible to find oneself in a situation where there is a total absence of certain chronological references: this is the case, for example, with liturgical majuscule. How can palaeographical methodology then proceed, in the absence of dated or datable manuscripts? One can resign oneself to Wittgenstein's conclusion that the historical representation of a phenomenon (in the sense of diachronic evolutionary development) is merely one of many possible

16 Crisci 2016, 145 remarks: 'the study of the late canonical majuscules (from the ninth and tenth centuries and the early eleventh century) should not place much reliance on schematic models for the interpretation of graphic phenomena. By this period we are in a context in which the traditional majuscule bookhands are imitative and adapt with difficulty (and with results which cannot always be compared, even within the same context, and/or different contexts) to graphic schemes which are in a sense "atemporal"'.

17 Cavallo 2005, 75.

ways of compiling and organising observable data.[18] Yet it is equally possible to consider the reciprocal *formal* relations of such data, gathering together their connections, in the search for intermediate links. Here the formal and structural similarities and links can constitute the framework of a particular, largely morphological, representation of a given graphic phenomenon. But this does not imply that we must give up the attempt to reconstruct an historical dimension: a graphic style is after all always a historical phenomenon, tied to a particular moment and context in time. In Carlo Ginzburg's words, 'in history [...] formal connections can be treated as evolutionary or rather genetic hypotheses, just formulated in a different way'.[19] Morphology and history do not necessarily exclude each other but constitute 'deux servantes maîtresses'[20], each ready to put itself at the service of the other in a relationship of reciprocal support and help. In this way palaeographical methodology transforms itself into *historical morphology*.

It is also true however that the way palaeography methodology operates or should operate, as described here, has also been criticised. The principal accusation is that it is 'subjective,'[21] based on natural inclination or the so-called 'palaeographical eye', in other words the individual capacity to recognise and identify scripts and scribal hands. It is of course undoubtedly the case that experience plays an important role in palaeography as in the majority of the human sciences. But it is methodology—an ordered process of actions, procedures, conventions, ensuring the observed data is recurrent and verified—which determines the outcome of reliable and credible results, even when they are not the ones which the researcher expects. In short, palaeographical skill in judgement must be founded on a knowledge of the history of writing, must adhere to precise, describable and repeatable methodological procedures, and must be based on reliable evidence. With these requirements subjectivity is not an equivalent of arbitrariness.

Nonetheless, there are examples where the results obtained by palaeographical methods of analysis contradict the historical, archaeological and scientific data relating to a certain manuscript or script. Cases in point are P. Kellis Lit. II 97 and the Codex Tchacos.[22] P. Kellis Lit. II 97 (LDAB 5667) comes

18 Wittgenstein 2006, 28–30, 50.

19 Ginzburg 1989, XXX.

20 An expression used by Irigoin 2000 to describe the relationship between palaeography and philology.

21 For example Turner 1987, 20.

22 Orsini 2018.

from Ismant el-Kharab, the ancient village Kellis, in the oasis of Dakhleh, and was dated by its editors to the beginning of the fourth century on the basis of various archaeological findings (pottery, coins, and papyri documentary texts).[23] But the script of the papyrus is a canonical bimodular Alexandrian majuscule, which can be compared with P. Grenf. II 112 (LDAB 6291, datable to 577 CE), P. Berol. 13418 (LDAB 983, middle of fifth century), P. Berol. 13262 + 21228 (LDAB 2198, second half of sixth century, although its editors proposed the fifth century), and P. Oxy. XX 2258 (LDAB 523, sixth century). Thus palaeographical methodology dates P. Kellis Lit. II 97 to either the fifth or sixth centuries while archaeological evidence suggests it was produced at the beginning of the fourth century.

The Codex Tchacos[24], the celebrated *Gospel of Judas*, has been examined with radiocarbon analysis, the results of which have dated the manuscript to between 230 and 340 CE. However, this Coptic codex was written in a Biblical majuscule which can be compared with Leid. Voss. Gr. Q. 8 + Paris. gr. 17 + Petropol. RNB gr. 3 (LDAB 3202, fourth-fifth centuries)[25] and P. Amh. I 1 (LDAB 5989, first half of fifth century)[26]. So the palaeographical information suggests a dating to between the end of the fourth century and the first half of the fifth century, while the radiocarbon analysis suggests an earlier dating to between 230 and 340 CE.

With these examples in mind, we must admit that the scientific efficacy of the method of formal comparison on occasion appears to be diminished or even nonexistent. As a result, the formal similarity between the script found in an undated manuscript and one found in a datable manuscript does not necessarily imply that we can establish a chronological relationship between the two: rather than being the only possible result of a unilinear diachronic process, certain structures and forms used in a graphic type could reflect the specific skills and choices of the scribes involved.[27]

Yet there are other examples in addition to the two examples just mentioned. There have been conflicting results from the use of radiocarbon analysis in the dating of manuscripts. The most significant application of the technique—in the case of the Dead Sea Scrolls—confirmed the datings resulting from

23 Gardner / Worp 1997, 141; Gardner (ed.) 2007, 95: Greek documents belong to the late third century and the fourth century (273/274 CE or 279/280 CE, P. Kell. I 61 [TM 33316]; 389 CE, P. Kell. I 26 [TM 20290]); the coins belong to the period of Licinius (308–324 CE) and Constantine II (347–358 CE).

24 For further information on this manuscript, see paragraph 4.5 of the *Coptic Biblical Majuscule* chapter.

25 Omont 1897; Cavallo 1967a, pl. 50.

26 Cavallo 1967a, pl. 53.

27 Crisci 2016, 138–139.

palaeographical analysis.[28] In other instances, the radiocarbon method has been less accommodating: as in the case of the three Coptic codices recently discussed by Karlheinz Schüssler[29], where the difference between the results obtained by radiocarbon analysis and those reached through palaeographical methods (albeit not consistently applied with the necessary rigour) varied between one and two centuries. We can conclude that, in order to test more accurately the efficacy of palaeographical methods, more opportunities need to be created for greater interaction between palaeographers and other scientific disciplines, in particular encouraging the further use of non-destructive radiocarbon analysis.[30]

The seven essays collected in the present volume tackle, either directly or indirectly, the problems and limits of palaeographical methodology as discussed in this introduction. In the two studies of the Nag Hammadi *Codices* and the Bodmer Papyri these two ancient book collections have been examined from a strictly palaeographical point of view, an approach which has been comparatively overlooked in previous work on these papyri. In comparing Greek and Coptic scripts I have tried to identify the homogeneities or the lack of them found in these two collections, which have often been seen—and not always justifiably—as single 'libraries' organised according to unified editorial programmes.

In the two essays dedicated to Biblical majuscule—in both Greek and Coptic spheres of production—I have confirmed the conclusions Guglielmo Cavallo reached in 1967, but I have also proposed, on the basis of quantitative analyses, some different historical interpretations of this graphic phenomenon. I have also looked again at the question of the geographical areas where this script was produced.

In connection with this issue, I have widened Cavallo's exploration of the question to include Coptic manuscripts written in Biblical majuscule, with the aim of identifying distinctive characteristics which could be used to suggest, on firmer grounds than hitherto, places of production in Egypt.

In the study of sloping pointed majuscule I have re-examined the findings of earlier scholars as well as forming a corpus of dated and datable manuscripts of fundamental importance for establishing the history of this script, which has

28 Bonani / Ivy / Wölfli / Broshi / Carmi / Strugnell 1992, 845 (table); Jull / Donahue / Broshi / Tov 1995, 14 (table 2), 15 (fig. 1); Carmi 2000. A criticism of the method used in this analysis for dating was made by Atwill / Braunheim / Eisenman 2004, 146–147 (table), 150 (table); however, van der Plicht 2007, drew attention to certain misinterpretations in Atwill and Braunheim and reconfirmed the previously established dating.

29 Schüssler 2016.

30 Steelman / Rowe 2002; Steelman / Rowe / Turpin / Guidelson / Nightengale 2004.

been the script less studied from this point of view among the 'canonical' Greco-Byzantine majuscules. I have also confronted the thorny problem of the localisation of manuscripts written in sloping pointed majuscule using the criterion of the 'angle of slope', applying what is essentially a quantitative analysis in order to show the substantial unreliability of this criterion for this task.

Two essays on liturgical majuscule conclude the volume. The first brings together the various work I have done on this script, in which a new approach is taken to the study of a majuscule script, taking into consideration not only books but also other media or objects in which writing appears (mosaics, icons, frescoes, liturgical objects), for a wider understanding of this idiosyncratic script, which emerged from a fusion of different graphic forms and traditions. The second essay is on a specific use of liturgical majuscule, the *Auszeichnungsmajuskel* found in Byzantine manuscripts from the tenth to the twelfth centuries, with sporadic revivals in subsequent centuries.

In conclusion, I should like to thank all those people who have supported and encouraged my researches. In particular, I should like to thank those colleagues with whom I have at various times discussed the questions examined in this book: Marilena Maniaci, Edoardo Crisci, Guglielmo Cavallo, Willy Clarysse.

My gratitude goes to the editors of the series *Studies in Manuscript Cultures* for having made it possible for me to conceive and publish this book as a volume in their series.[31]

Rome, 27 August 2018

31 The following points should be noted: 1. The images reproduced in this book are all taken from earlier publications and/or websites; 2. The quotations from texts in languages other than English have all been translated for the sake of uniformity; 3. The websites cited in the notes were all last verified on 18 September 2018.

1 The Scripts of the Nag Hammadi Codices

The Coptic manuscripts known as the 'Nag Hammadi Codices', discovered, in 1945,[1] in a jar in Jabal al-Tarif, near the modern-day village of Hamrah Dum in Egypt, comprise a corpus of thirteen papyrus manuscripts containing 51 texts (originally written in Greek and subsequently translated into Coptic).[2] According to Stephen Emmel's calculations, this corpus consists of 'a minimum of 1,240 inscribed pages', of which '1,156 are currently represented by at least one fragment'.[3] It was only in the 1970s that a facsimile edition of all the Nag Hammadi material, produced under the auspices of UNESCO, was completed.[4]

Numerous scholars have worked on distinguishing the hands of the different scribes who produced the manuscripts, among them Henri-Charles Puech, Jean Doresse, Martin Krause, Stephen Emmel, Michael Allen Willams, Aleksandr Khorsroyev and Alberto Camplani (see Table 1).[5]

These scholars have taken into account the differences in scribal hands found in the manuscripts, though almost exclusively in relation to questions of language, content and codicology; much less attention, however, has been paid to the purely

1 On the discovery of the codices of Nag Hammadi, see the account (though not accepted by all Coptologists) provided by James R. Robinson in NHC 1984, with earlier bibliography; see also Robinson 2014, 399–419. The codices of Nag Hammadi (henceforth cited as NHC) presently belong to three public institutions: the Coptic Museum in Cairo (inv. nos 4851, 10544–55, 10589, 10590, 11597, 11640); the Institute for Antiquity and Christianity at Claremont Graduate University (California), which owns the binding of NHC I; the Beinecke Library at Yale University, New Haven (Connecticut), which holds the portion of a leaf of NHC III (pp. 145–146). On the origin of NHC, see Goodacre 2013, 303–322; Denzey Lewis / Ariel Blount 2014, 399–419. For complete bibliography to 2006, see Scholer 1971; Scholer 1997; Scholer 2009. The place of the origin is discussed by Lundhaug / Jenott 2015. Their investigations could not be considered in detail since the outcome of this article was in 2008. In their opinion the origin of the NHC lies 'by a Christian monastic setting in Upper Egypt' (1), more precisely they see the origin as well as reception expanded and deepened in the Pachomian federation with its several monasteries (262). See also the critical review of Piwowarczyk / Wipszycka 2017.

2 As some of the 51 texts can be found more than once in the NHC, the number of original texts decreases to 45, 36 of which were previously unrecorded.

3 Emmel 1991, 1772.

4 NHC I (1977) [TM 107741]; NHC II (1974) [TM 107742]; NHC III (1976) [TM 107743]; NHC IV (1975) [TM 107744]; NHC V (1975) [TM 107745]; NHC VI (1972) [TM 107746]; NHC VII (1972) [TM 107747]; NHC VIII (1976) [TM 107748]; NHC IX–X (1977) [TM 107749–107750]; NHC XI–XII–XIII (1973) [TM 107751–107752–107753]; NHC 1979; NHC 1984.

5 See Puech 1950; Doresse 1958; Krause 1963; Krause / Labib 1971; Krause, 1975; Emmel 1978; Krause 1978; Williams 1987; Williams 1992; Williams 1995; Khorsroyev 1995, 136–142; Williams 1996, 235–262; Camplani 1997.

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graphical aspect of the manuscripts. This lack of attention can be explained by the very limited degree of palaeographical research into Coptic scripts; what research has been done has been conditioned by a theoretical approach which oscillates between two extremes: on the one hand, the wholesale acceptance of the findings of Greek palaeography and on the other the uncompromising rejection of these findings, which can lead to a form of palaeographical scepticism so extreme as to deny the possibility of even a hypothetical dating of the manuscripts. In effect, the Coptic bookhands have not been—or only very rarely and partially—the subject of comprehensive monographic studies which can shed light on their specific characteristics and the similarities and differences with Greek scripts.[6] The preference of scholars has often been to study single scribal products or groups of them—such as the Nag Hammadi codices—producing careful detailed descriptions of all the material features but paying little attention to an analysis of the writing. If we look for example at the palaeographical terminology which has been employed to described the varieties of script found in the thirteen Coptic manuscripts, it is impossible not to recognise that the linguistic imprecision of the descriptions conceals problems which are in essence theoretical: 'regular, upright uncial' or 'upright capital script often with ligature' to describe the main scribal hand in NHC II;[7] 'casual, flowing uncial script' for NHC III;[8] 'handsome regular uncial script' for NHC IV;[9] 'handsome, flowing uncial script' for NHC VII;[10] 'Thick-and-thin style' for NHC VIII;[11] 'round uncial, with cursive feature' for NHC IX;[12] 'primitive version of the Biblical majuscule type' for NHC X;[13] 'formal mixed hand of a sloping kind' for the first scribal hand found in NHC XI and 'formal round majuscule, more round than the Biblical majuscule' for the second scribal hand contained in it;[14] 'Biblical Majuscule' for NHC XII;[15] 'regular, uncrowded Biblical majuscule without embellishment (e.g. serifs)' for NHC XIII.[16]

6 For studies in Coptic codicology and palaeography, see Layton 1985; Emmel 1993; Emmel 1999; Boud'hors 2006; for a particularly important study, see Boud'hors 1997. On Coptic Biblical majuscule, see Orsini 2008a and the *Coptic Biblical Majuscule* chapter in this volume. For an interesting study on the relation between Greek and Coptic scripts in fourth-century manuscripts, see Gardner / Choat 2004.

7 Waldstein / Wisse 1995, 4.

8 Böhlig / Wisse 1975, 2.

9 Böhlig / Wisse 1975, 2.

10 Pearson 1996, 5.

11 Sieber 1991, 5.

12 Pearson 1981, 8–10.

13 Pearson 1981, 218–219.

14 Hedrick 1990, 4, 7–10.

15 Hedrick 1990, 292.

16 Hedrick 1990, 362–363.

There are too many definitions, frequently imprecise, referring to the same typologies of script. The scripts found in the Nag Hammadi manuscripts refer to only a few general models, which can be listed as follows: 1. unimodular Alexandrian majuscule (preceding the script's canonical phase, described by Guglielmo Cavallo as 'the Alexandrian stylistic class'; 2. Biblical majuscule; 3. a mixture of features from Alexandrian majuscule and Biblical majuscule; 4. a script occupying a transitional position between the 'severe style' and sloping pointed majuscule.

The present study, therefore, aims to provide a comparative analysis of these graphic typologies, with the principal aim of placing them in the context of the history of Greek-Coptic scripts. Such a procedure must of course be based on drawing accurate distinctions between the scribal hands found in the corpus and as a result identifying groups of hands on purely stylistic grounds.

1.1 Scripts based on Alexandrian majuscule

The largest group of codices contain hands which take as their model unimodular Alexandrian majuscule, or rather the phase of the scripts which Guglielmo Cavallo has called 'the Alexandrian stylistic class', that is to say, a class of scripts in which the characteristic features of the style have not yet become canonical (a development which would only occur between the end of the fourth and beginning of the fifth centuries CE).[17] The axis of the script is vertical; rounded forms and curved strokes are preferred; the loops are accentuated, whereas the terminal shadings are little developed. The following forms of certain letters should be noticed: the *alpha* is looped, drawn in a single stroke without lifting the pen but there are also examples written in two pen strokes (with the oblique stroke descending from left to right traced as a round bow); *delta* and *lambda* at times show the upper part of the oblique stroke from left to right (slightly curved) ending in a small curl; *epsilon* is written in three strokes, with the upper bow at times closing on the horizontal stroke; *mu* is written in a single pen stroke but also in two or three, with all the strokes concave; *upsilon* is written with both one and two strokes, in the shape of a 'horn' with a loop at the base; *phi* is written with a round or rhomboidal bowl, but contained within the bilinear space; *omega* is written with one or two strokes, with a central loop; *gima* tends to be fitted in within the bilinear space. Although there are

17 Irigoin 1959a; Cavallo 1975; Cavallo 1977a, 109–110; Porro 1985; Cavallo 2005; Cavallo 2008, 101–105; Radiciotti 2008; Cavallo 2009, 129–131; Bastianini / Cavallo 2011; Crisci / Degni 2011, 120–123. For dated or datable manuscripts in Alexandrian majuscule, see Orsini / Clarysse 2012, 453 n. 41.

differing levels of execution, the scripts found in NHC III, IV, V, VI, VIII, and IX belong to this class and can be dated to the first half of the fourth century, as we will see in greater detail, on the basis of comparison with P. Lond. VI 1920 (330–340 CE; TM 44659)[18] and P. Lond. Copt. 522 (fourth century; TM 107974)[19] for NHC III, and P. Ryl. III 489 + P. Lond. inv. 2852 (first half of fourth century; TM 61453)[20] for the remaining manuscripts in this group.

Fig. 1: NHC III, 55.

The majuscule present in NHC III,[21] written by a single scribe, is executed rather roughly, placed irregularly on the base line and displays evident lack of modular uniformity (Fig. 1). While the scribe's taste for round forms and loops is obvious, the terminal shadings are only slightly accentuated. In *delta* and *lambda* the upper part of the oblique stroke descending from left to right is not looped; *epsilon*, written with three strokes, is angular in form; *omega* is written either with a single stroke of the pen (with a central loop) or with two strokes (the initial bow followed by the vertical middle stroke joined to the second bow); *hori* is in the form of the figure '2'; *gima* has a small lobe while the upper bow ends in an elongated flourish within the bilinear space.

18 Cavallo / Maehler 1987, 22, 24 and pl. 8a.

19 Crum 1905, 251–252, no. 522, pl. 10. The palaeographical comparison was suggested by Khorsroyev 1995, 142 n. 411.

20 P. Ryl. III, pl. 10; Cavallo / Maehler 1987, 22, 25 and pl. 8b.

21 NHC III (1976); Wisse 1975, 232; Böhlig / Wisse 1975, 2; Waldstein / Wisse 1995, 2. For the colophon at p. 69, ll. 6–17, see Bellet 1978.

The single scribe who wrote NHC IV[22] was clearly inclined to use round forms and loops (Fig. 2). Compared with the writing in NHC III, the execution here is more careful; there are fewer modular irregularities while the script is more regularly placed on the base line. The overall axis of the writing leans slightly to the left while a contrast can be noted between thin strokes (horizontal and oblique ascending left to right) and thick strokes (vertical). The oblique stroke descending from left to right in *delta* occasionally shows a small loop at the upper tip; *epsilon* is formed of three strokes, with a horizontal stroke extending to the right beyond the body of the letter while the upper bow tends to close on the horizontal stroke; *mu* is written in one stroke with prominent loops and only on rare occasions in four strokes (see examples at p. 24, l. 28); *upsilon* is looped and in the form of a 'horn' but when coming at the end of a line examples can be found of the letter written in three strokes and descending below the base line; the tail of *shai* descends below the base line almost vertically, with an end flourish to the left; *fai* has a small upper bow.

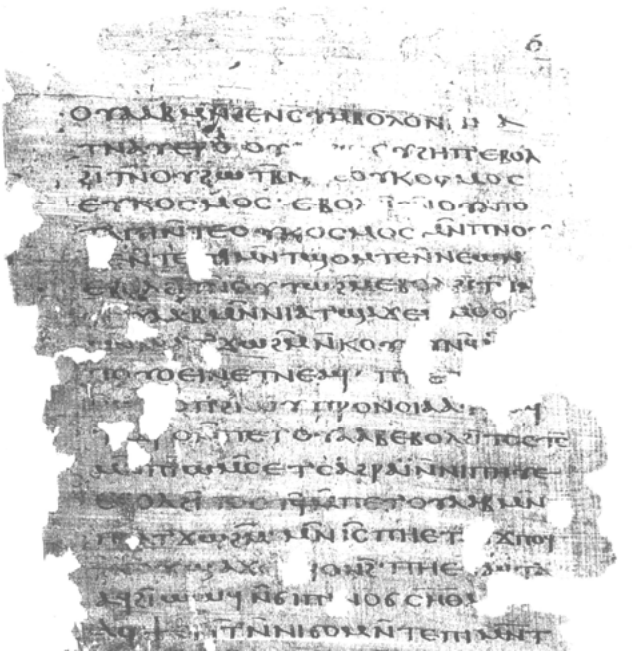

Fig. 2: NHC IV, 75.

22 NHC IV (1975); Böhlig / Wisse 1975, 9; Waldstein / Wisse 1995, 5; Camplani 1997.

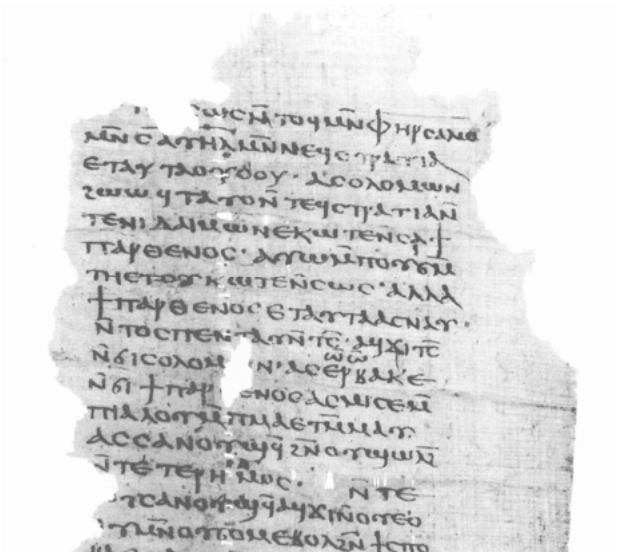

Fig. 3: NHC V, 79.

NHC V[23] is also written by a single hand and again shows a taste for round forms and loops (Fig. 3). The alignment on the base line, however, is irregular, like the module of the individual letters. The direction of the script is on occasion slightly sloping to the left and the distinction between thick and thin strokes is heavier and less controlled than we find in NHC IV. It is noteworthy that some vertical strokes which descend below the base line (*rho*, *phi*, *psi*, *fai*, *ti*) have a small serif turned to the left. The oblique stroke descending from left to right in *delta* is sometimes straight and sometimes curved; *epsilon* is written in three strokes, with the horizontal stroke extending beyond the body of the letter; in *kappa* the two oblique strokes are either straight or slightly curved, while the upper stroke presents a slight terminal shading; the bowl of *rho* is small; the horizontal stroke of *tau* has small ornamental flourishes at either end; *upsilon* is looped and in the form of a 'horn', with the curved strokes at time extended to touch the base line; however, we can also find, though more rarely, a form of *upsilon* written in three strokes with the oblique lines curved and the vertical line extending below the base line; the upper curve of *fai* is small. Compared with NHC IV, the quality of the writing is undoubtedly inferior and there are many differences in the structure of the letters. We can therefore

23 NHC V (1975); Doresse 1958, 164–167; Krause / Labib 1971, 26; Manfredi in Robinson 1975, 18; Parrott 1979, 1–2.

exclude the possibility that the same scribe was responsible for NHC IV and V, although they certainly share general characteristics and as a result can be attributed to the same period.

The hand found in NHC VI[24] differs from those found in the codices just described (Fig. 4). The execution is fairly crude and the alignment on the base line is irregular and hesitating. The writing is slightly sloping to the left and the module of the letters is compressed on the base line. As far as the contrast between thick and thin strokes is concerned, the vertical strokes are thickest while the horizontal strokes and the oblique strokes ascending from left to right are thinnest, while all the other strokes vary from minimal thinness to average thickness (see, for example, *nu*). Also in this codex we find that the strokes of certain letters which descend below the base line (*rho*, *phi*, *psi*, *fai*, *ti*) have a small serif turned to the left, although this is less consistently done than we find in NHC V. *Epsilon* is written in three strokes, with a small serif at the end of the upper curve and the horizontal stroke extended beyond the body of the letter; the oblique strokes of *kappa* are slightly curved; the oblique stroke of *nu* is on occasion undulated; the horizontal stroke of *tau* has small ornamental flourishes at either end; *upsilon* is looped and in the form of a 'horn', with curved strokes developing; the upper bow of *fai* is small.

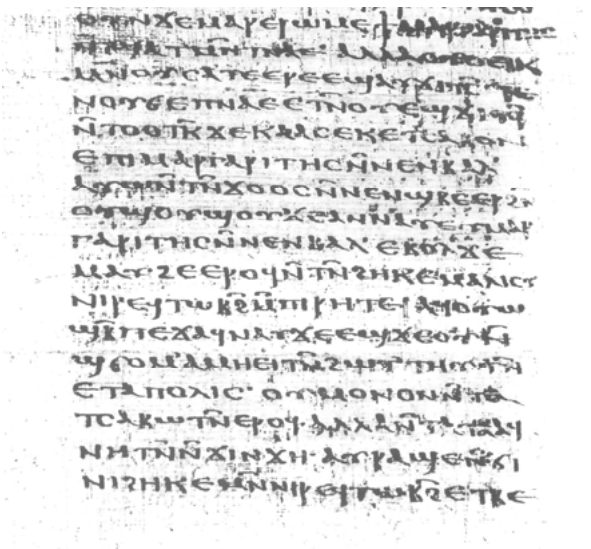

Fig. 4: NHC VI, 4.

24 NHC VI (1972); Camplani 1997; Crisci 2004, 135–136.

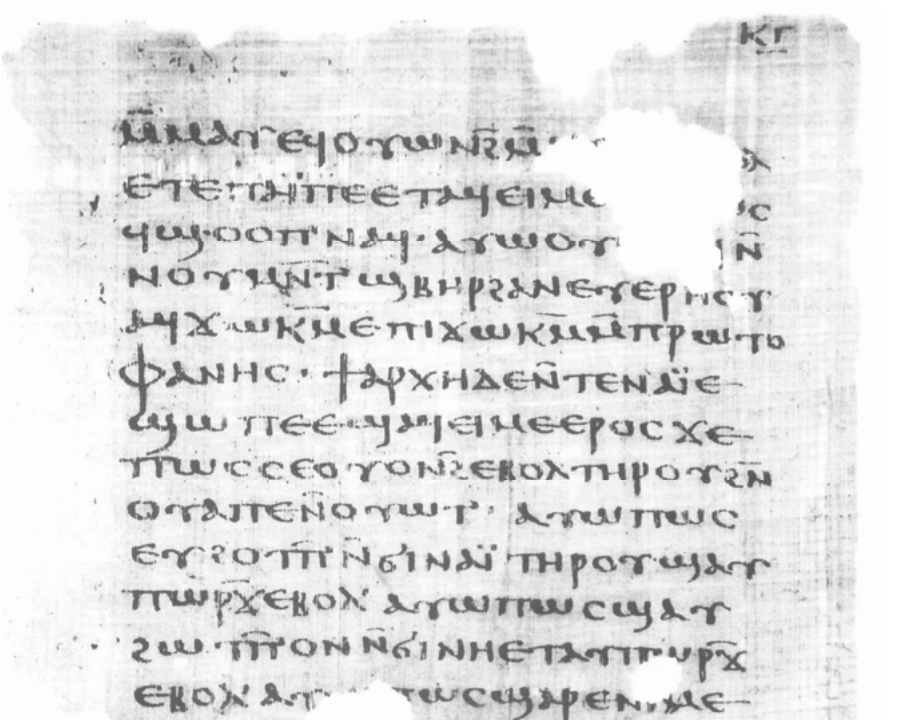

Fig. 5: NHC VIII, 23.

Another hand again is found in NHC VIII[25] (Fig. 5). The writing is upright, though it slopes to the left on occasion. The contrast between thick and thin lines is careful and on the whole consistent; vertical strokes are the thickest, while horizontal and oblique strokes ascending from left to right are thinnest, and the oblique strokes descending from left to right are of medium thickness (varying on occasion between maximum and medium thickness). In *delta* and *lambda* the upper part of the oblique stroke descending from left to right is accentuated; *epsilon* is written in three strokes, on occasion with an angular appearance to the curve of the letter; the oblique strokes of *kappa* are slightly curved and show shaded tips; the tail of *shai* is somewhat vertical, ending in a flourish to the left.

25 NHC VIII (1976); Sieber 1991, 4; Krause / Labib 1971, 6.

In NHC IX,[26] the work of a single scribe, at times the vertical strokes which descend below the base line end with a small serif turned to the left (Fig. 6). The axis of the writing is vertical although there is occasional minor sloping to the left. The distinction between thick and thin strokes is accentuated, but the thickness of some strokes (especially the oblique ones) is irregular. The scribe has a liking for loops and rounded forms. The oblique stroke descending from left to right in *delta* and *lambda* is slightly curved and the upper part is extended; in *kappa* the oblique strokes are slightly arched.

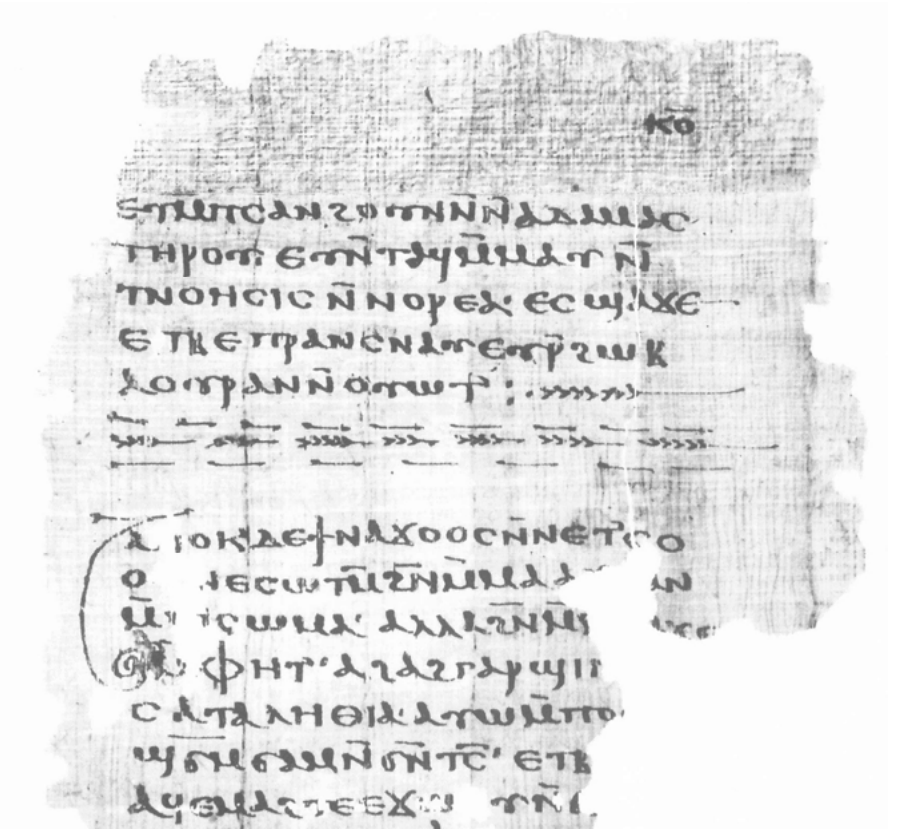

Fig. 6: NHC IX, 29.

26 NHC IX–X (1977); Pearson 1981, 1–18; Doresse 1958, 164–167; Krause 1963, 110; Krause / Labib 1971, 6, 8; Emmel 1978, 28; Manfredi in Robinson 1975, 18; Crisci 2004, 135–136.

1.2 Scribal styles based on Biblical majuscule

Writing styles based on Biblical majuscule can be found in NHC I (pp. A–43, l. 24; 51–138), NHC II (both hands: the first on pp. 1–46, 47, l. 8–145; the second in the first eight lines of p. 47), NHC X, NHC XII, which displays the features characteristic of the beginning of the 'period of decline of the canonical style':[27] the writing angle is frequently irregular, largely because of its poor quality, which causes the oblique strokes from left to right to vary from medium to maximum thickness, with minimal thickness found only at times in *nu*; terminal shading is rarely found in thin strokes; *alpha* is formed either of three or of two strokes, with the oblique stroke from left to right at times slightly extended below the base line; the oblique stroke of *nu* is at times slightly curved; *rho* and *epsilon* extend slightly below the base line. References for comparison are P. Oxy. XVII 2101 (second half of fourth century; LDAB 4205) for NHC I (pp. A–43, l. 24; 51–138), P. Berol. inv. 5011 (*BKT* 8 15) (second half of fourth century; LDAB 3266) for both hands found in NHC II, and P. Oxy. XIII 1600 (end of fourth century; LDAB 2609) for NHC X and XII.

The first hand found in NHC I (pp. A–43, l. 24; 51–138)[28] varies noticeably in size, is badly aligned on the base line and the writing angle is somewhat irregular (Fig. 7). The thickness of the strokes is irregular and inconsistent: only the horizontal lines are consistently of a minimal thickness, while the oblique strokes show notable variations. The bilinear system is continually infringed by letters varying in size, sometimes small and sometimes large. *Alpha* is written in three strokes, with an oblique middle stroke while the stroke descending from left to right sometimes extends below the base line; *beta*, written in four strokes, shows two detached small bowls; the stroke of *kappa* from left to right ends with a small left-facing hook; *mu* is written in four strokes with the second oblique stroke slightly extended below the base line, beyond the point of contact with the first oblique stroke; in *nu* the middle stroke is curved; *epsilon*, *theta* and *omicron* are frequently enlarged in comparison with the other letters; *rho* has a small bowl; both ends of the vertical stroke in *tau* show on occasion some slight ornamental shading; the stroke descending from left to right of *upsilon* is sometimes straight and sometimes curved; it should also be noted that its size

27 Cavallo 1967a, 64–76; Orsini 2005a, 179–185; for the history of Biblical majuscule, see also Cavallo 1977a, 106–107; Cavallo 2008, 98–101; Cavallo 2009, 128–129; Crisci / Degni 2011, 106–111. For Coptic Biblical Majuscule, see Orsini 2008a and the *Coptic Biblical Majuscule* chapter in this volume. For dated and datable manuscripts in Biblical majuscule, see Orsini / Clarysse 2012, 452 n. 37.

28 NHC I (1977).

usually breaks the bilinear system both above and below; the bowl of *phi* is contained within the two lines while the left half is rounder than the right one; *hori* is written in two strokes and the lower part is angular. While this writing style shows the influence of Biblical majuscule, it cannot be said to belong entirely to the 'canon'.

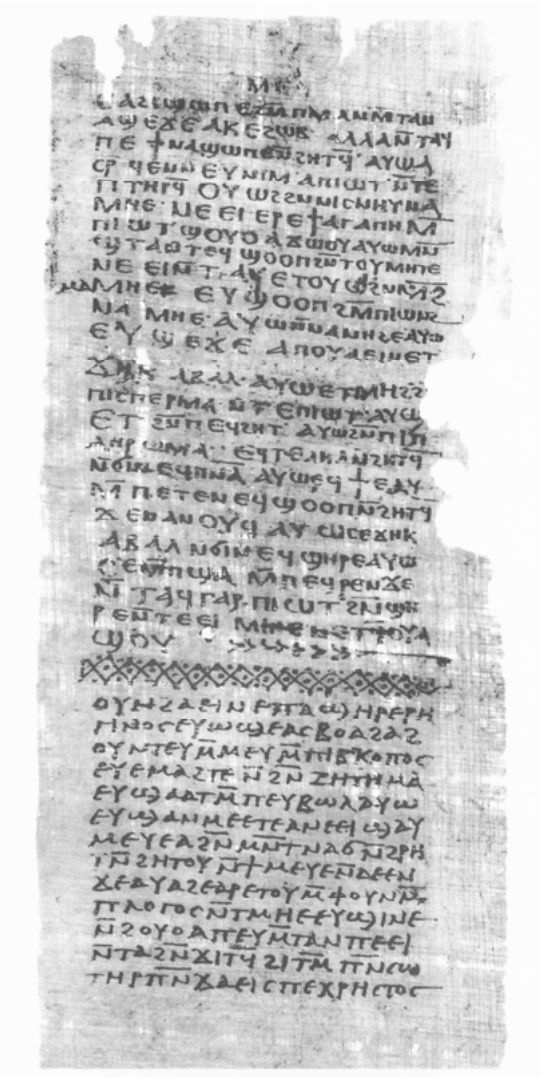

Fig. 7: NHC I, 43.

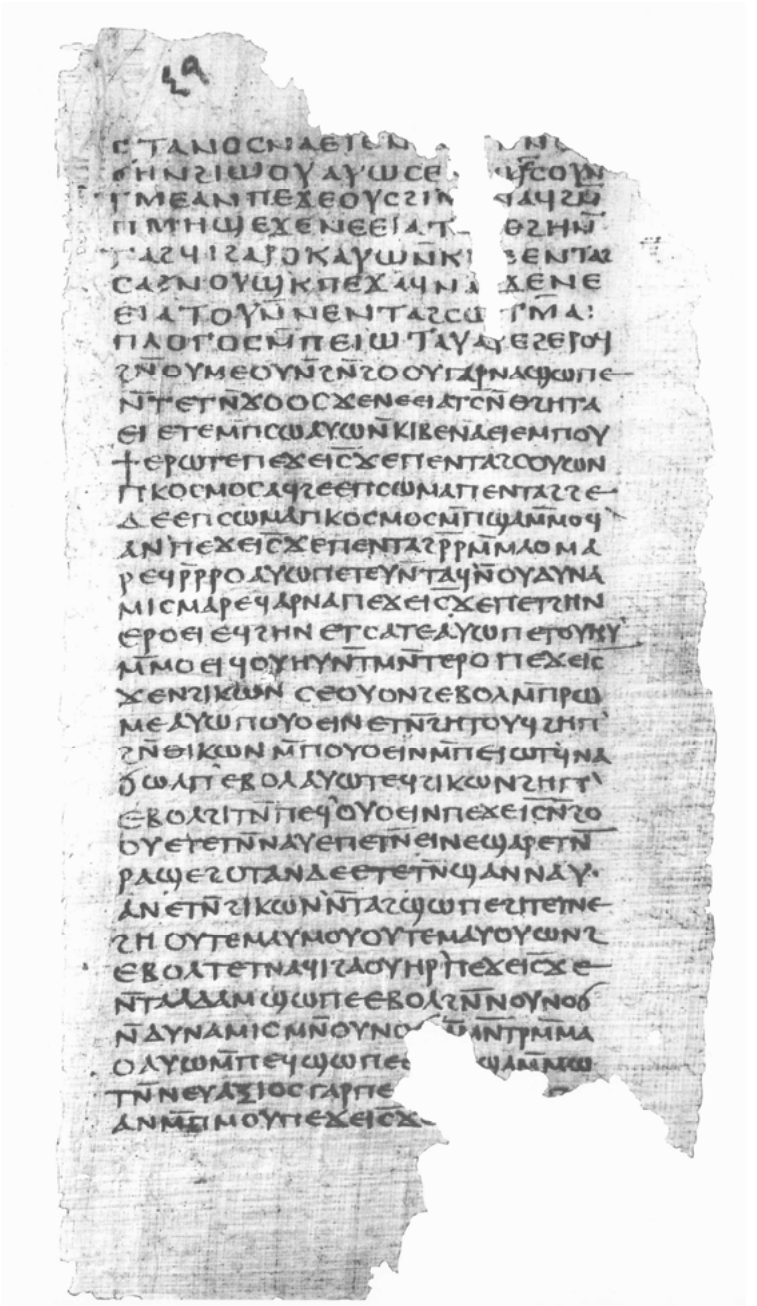

Fig. 8: NHC II, 47.

Two hands in succession can be found in NHC II[29] (the first on pp. 1–46 and 47, l. 8–145; the second only in the first eight lines of p. 47) (Fig. 8). The main hand writes in a somewhat rough style, although the writing angle is fairly regular (see for example the oblique strokes descending from left to right of medium thickness, in *nu* as well). Terminal shadings are rarely found, only in the ends of the horizontal stroke of *tau* and at the top ends of the descending oblique stroke of *alpha*, *delt*a and *lambda*. In *alpha* and *lambda* the oblique stroke descending from left to right is curved; *beta* is written sometimes in four strokes and sometimes in three (with the two bowls traced in a continuous stroke); *epsilon* has an upper loop that often closes on itself while the horizontal stroke extends beyond the body of the letter; the horizontal stroke of *eta* is raised above the centre; the oblique strokes of *kappa* do not start from the centre of the vertical stroke but slightly below it; in *mu* the oblique strokes tend to be written without lifting the pen from the paper, with the result they are curved rather than angled; the bowl of *phi* is round and contained in the space between the lines; in *shai* the stroke extending below the base line is almost vertical and ends in a left-turned serif; the body of *gima* is round and enlarged, and looks similar to *omicron*.[30]

The hand that wrote the first eight lines on p. 47 appears less expert than the first, judging from the uncertain alignment on the base line, the irregularity in the module of the letters, and the more artificially contrived angle of the writing.[31] There is a larger presence of ornamental flourishes at the ends of certain thin strokes (very clearly seen in the ends of the horizontal stroke of *tau*); *epsilon* has a round body and a terminal shading to the middle stroke; the middle stroke of *eta* is slightly raised; in *kappa* the lower oblique stroke terminates with a small serif to the left; *mu* is written in four strokes and the stroke descending from left to right is of medium thickness; the oblique stroke of *nu* is of minimal thickness and is curved; the bowl of *rho* is very small; the vertical strokes of *rho* and *upsilon* extend slightly below the base line.

The single scribe who penned NHC X[32] is also working in the area of influence of Biblical majuscule, although many features of individual letters differ

29 NHC II (1974); Layton 1989, 4–5.

30 According to Layton 1976, 84, it would seem that this hand also copied NHC XIII; see also Layton 1989, 4; Layton 1974, 357–358; Waldstein / Wisse 1995, 4; Giversen 1963, 34–40; Camplani 1997, 128; Crisci 2004, 135 n. 97: 'even though the two hands (the first hand in NHC II and that in NHC XIII) are undoubtedly very similar, it seems to me that there are differences which lead one to suppose there were two scribes'.

31 According to Crisci 2004, 135, 'the scribe of MS. X, or at least a different scribe with similar graphic training, also wrote MS. II, f. 47, ll. 1–8'.

32 NHC IX–X (1977); Krause / Labib 1971, 9; Pearson 1981, 211–227; Crisci 2004, 135.

markedly from the 'canon' (Fig. 9). The writing angle is irregular; the oblique strokes descending from left to right vary from maximum to medium thickness. Small ornamental serifs are found at the ends of thin strokes. *Alpha* is written in three and also in two strokes, with a horizontal serif on the top of the stroke descending from left to right (also found in *delta* and *lambda*) while the bottom end has a short horizontal tail towards the right; *beta* is written in four strokes; the back of *epsilon* and *sigma* is fairly stiff; in *kappa* the upper oblique stroke is very thin and terminates with a hook to the left; in *nu* the oblique stroke is curved; *rho* extends slightly below the base line; *upsilon* sometimes has the stroke descending from left to right straight and sometimes wavy, and extends slightly below the base line; *omega* has flattened curves; *gima* has a round bowl and the upper stroke extends upwards.

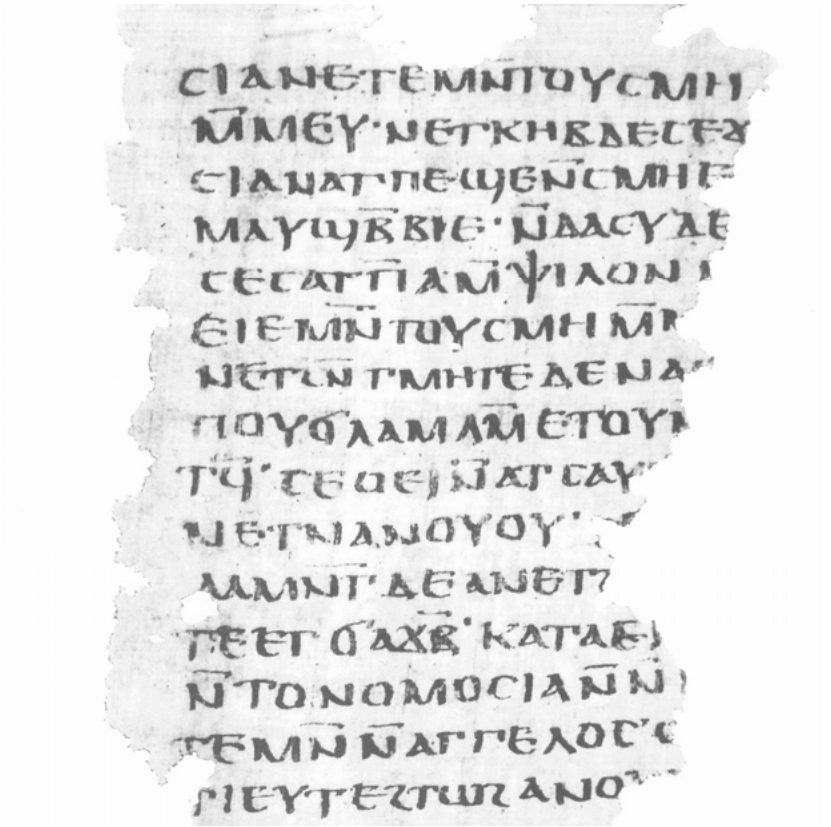

Fig. 9: NHC X, 27.

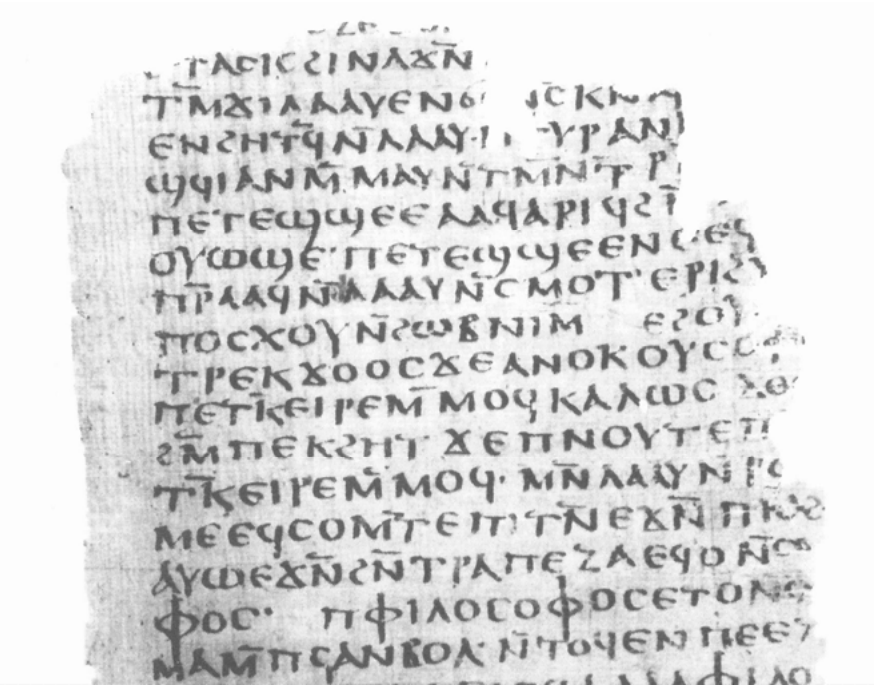

Fig. 10: NHC XII, 34.

The writing angle in NHC XII[33] is irregular: the strokes descending from left to right vary from medium to maximum thickness (Fig. 10). *Alpha* is sometimes in three strokes and sometimes in two, and the oblique stroke descending from left to right occasionally extends below the base line; *beta* is written in four strokes; in *delta* and *lambda* the oblique stroke descending from left to right extends upwards; *mu* is in four strokes, except for certain looped forms which only appear at the end of lines; *rho* extends slightly below the base line; the vertical stroke of *tau* has serifs at either end; *upsilon* has the leftwards oblique stroke sometimes straight and sometimes wavy; the bowl of *phi* is roundish and contained within the bilinear space.

33 NHC XI–XII–XIII (1973); Krause / Labib 1971, 13; Hedrick 1990, 289–294.

1.3 Combination of characteristics from Alexandrian majuscule and Biblical majuscule

Two scribes use hands which combine features from two different styles, Alexandrian majuscule and Biblical majuscule. The first was responsible for the whole of NHC VII[34] and pp. 45–72 of NHC XI,[35] while the second copyist wrote NHC XIII.[36]

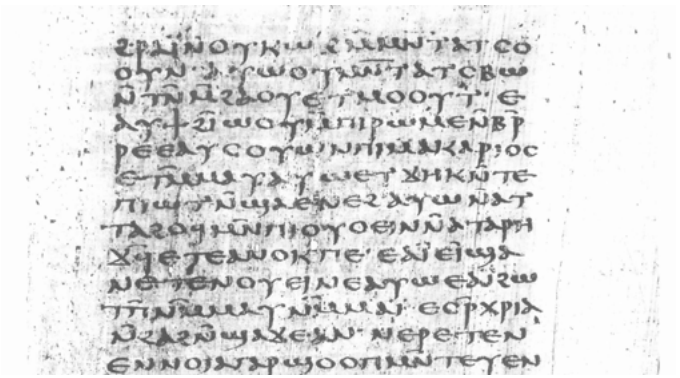

Fig. 11: NHC VII, 59.

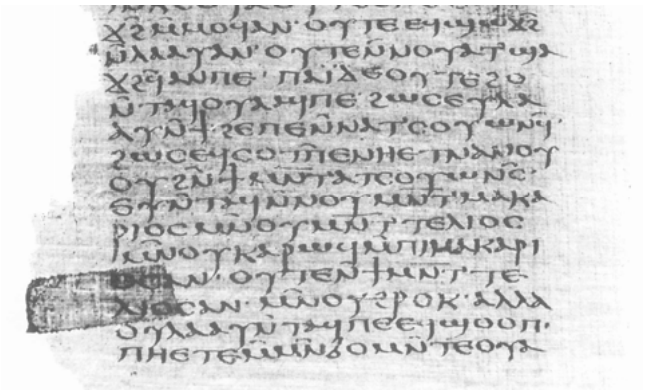

Fig. 12: NHC XI, 65.

34 NHC VII (1972); Krause / Labib 1971, 3; Pearson 1997, 44–61; Pearson 1996, 1–13.

35 NHC XI–XII–XIII (1973); Hedrick 1990, 3–20; Camplani 1997; Crisci 2004, 136.

36 NHC XI–XII–XIII (1973); Krause / Labib 1971, 14; Emmel 1978, 27–28; Hedrick 1990, 359–369; Crisci 2004, 135.

The first scribe (Fig. 11–12) shows a taste for round forms and loops reflecting the influence of Alexandrian majuscule; on the other hand, he employs an accentuated contrast of thick and thin strokes and certain characteristics of the letters relate to Biblical majuscule. The strokes descending from left to right in *alpha*, *delta* and *lambda* extend upwards breaking the bilinear space; their thickness varies from medium to maximum. The strokes that descend below the base line (*rho*, *upsilon*, *phi*, *psi*, *fai*, *ti*) sometimes slope obliquely to the left and sometimes terminate in a progressively thinning stroke. Small ornamental flourishes are found at the end of thin strokes. *Alpha* is looped and in two strokes; *beta* is written in four strokes and has two round bowls; *epsilon* is written in three strokes, with the horizontal stroke raised; *kappa* has the two oblique strokes slightly curved, and the upper one ends with a terminal shading; *mu* is both looped and written in three strokes, with a wide central curve; in *nu* the oblique stroke is curved and has an average thickness, though there are also examples where this stroke gets progressively thinner; in *pi* the two vertical strokes are slightly curved and splayed outwards; *upsilon* is in three strokes with heavily curved oblique strokes (though there are also examples where these strokes are perfectly straight) and the vertical stroke descends below the base line; the loop of *phi* is in the form of a rhomboid and is contained within the bilinear space; *hori*, shaped as a '2', is in two strokes, with the lower one undulating; *gima*, in the form of a '6', has a rigid oblique stroke (ending with a terminal shading) and a small round bowl.

The scribal hand found in NHC XIII (Fig. 13) has a vertical axis and the contrast of thick and thin is typical of Biblical majuscule (written at an irregular angle). It uses loops and roundnesses which are characteristic of Alexandrian majuscule. *Alpha* is written in two or three strokes, with the oblique stroke descending from left to right curved and with terminal shading at the top end; *beta* is written in four strokes; in *delta* and *lambda* the oblique stroke descending from left to right is arched and with terminal shading at the top end; *epsilon* has the horizontal stroke raised and extending beyond the body of the letter; *mu* is looped; *rho* has a small loop and the vertical stroke extends slightly below the base line; *upsilon* is written in three strokes and tends not to go below the base line; the bowl of *phi* is round and contained within the bilinear space; *omega* occasionally has a central loop; *gima* has a round bowl, and the terminal stroke is extended upwards.[37]

37 A correction found in NHC II, 12, l. 18 has been linked to the hand that wrote NHC XIII (see Turner 1990, 362). It is in fact very difficult to establish whether it is the same scribe: the correc-

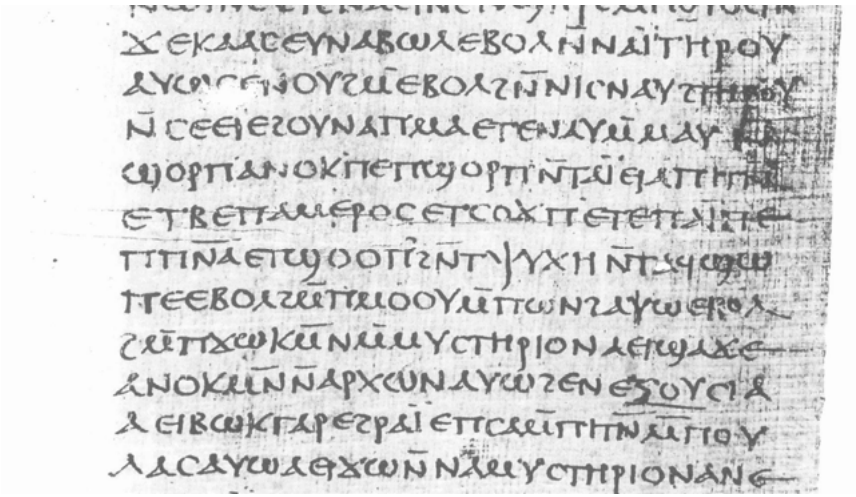

Fig. 13: NHC XIII, 41.

It is interesting to see that attempts at writing in this style, a mixture of elements taken from Alexandrian majuscule and Biblical majuscule, are rarely found in Greek manuscripts while they are frequently found in Coptic production. It is a phenomenon found in Egypt, to be more precise in the Greek-Coptic ambience and is a fusion, sometimes more pronounced and sometimes less so, of the two Greek writing styles.

1.4 Transition from severe style to sloping pointed majuscule

The same scribe wrote the middle part of NHC I (pp. 43, l.25–50, l.18 [the rest of the page is blank])[38] and the initial part of NHC XI (pp. 1–44),[39] employing a style which reflects the transition between severe style with a sloping axis to sloping pointed majuscule (Fig. 14–15).[40] Besides the right-leaning slope of the writing,

tion is written in a cursive hand sloping to the right; the strokes of the single letters are traced differently from those found in the script of NHC XIII.

38 NHC I (1977).

39 NHC XI–XII–XIII (1973); Hedrick 1990, 3–20; Camplani 1997.

40 On the 'severe style', see Schubart 1925, 124–132; Turner 1987, 26; Funghi / Messeri 1989; Del Corso 2006; Cavallo 2008, 105–111; Cavallo 2009, 131–132; Crisci / Degni 2011, 73–74. For some dated and datable manuscripts in 'severe style', see Orsini / Clarysse 2012, 456 n. 54. It is

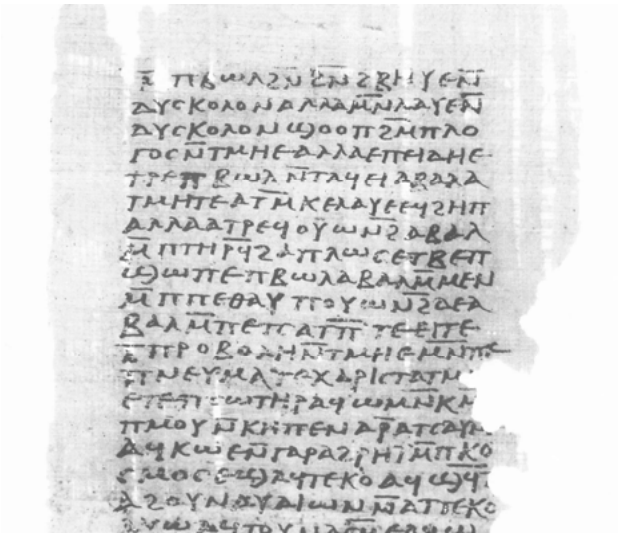

Fig. 14: NHC I, 45.

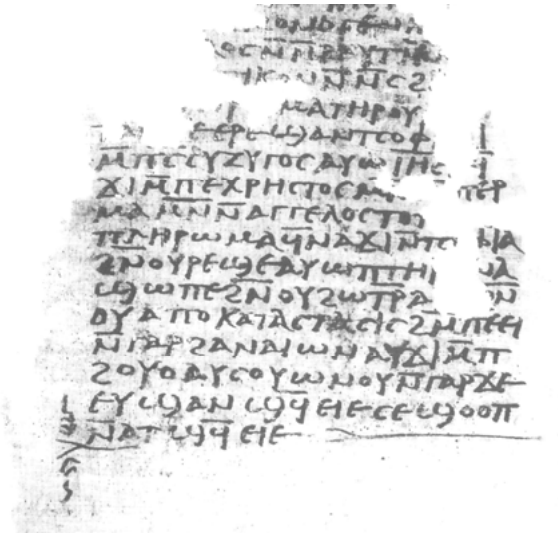

Fig. 15: NHC XI, 39.

also worth mentioning Sandré 1977, who correctly identified this scribe in the two Nag Hammadi manuscripts, but proposed an improbable dating in the end of the second century.

other features include an irregular lineation along the base line, contrasting sizes, and unemphatic shading. In *alpha*, *delta* and *lambda* the stroke descending from left to right is undulated and often extends both upwards and downwards; *alpha* is written in two or three strokes; *beta* has the two bowls detached, with the lower one more angular than the upper one; the middle stroke of *epsilon* extends beyond the body of the letter; *theta* extends the horizontal stroke only to the right, to the point where it touches the following letters; the lower oblique stroke of *kappa* is arched and at times extends below the base line; *mu* has a wide central curve and the second vertical stroke is curved; the oblique stroke of *mu* is undulating; the loop of *rho* is angular; in *shai* the tail, which extends below the base line, is continuous together with the terminal stroke of the right curve; in *hori* the lower curve is broken and angular; the body of *janja* is enlarged. Parallels for this style of writing can be found in P. Berol. 10566 + 10558 + 10559[41] (attributable to the end of the fourth century; LDAB 5596); in P. Bodmer XXI + P. Chester Beatty Ac. 1389 (datable to the fifth century; LDAB 108537); in P. Beatty XII (datable to the fourth century; LDAB 2608). These parallels would therefore support an attribution of date to the end of the fourth century.

1.5 Results of the investigation

The results of the palaeographical analysis have been summarised in two tables: in the first (Table 1) the different hypotheses, including those advanced in the present study, on the distinction of hands are shown; in the second (Table 2) the different graphic typologies and the relative attributions of date are shown for the individual scribes.

As far as the distinction between different scribes is concerned, the account given here confirms the hypotheses proposed by Stephen Emmel and Michael Allen Williams, although there are differences above all in how the graphic and stylistic characteristics of the hands are grouped. Emmel does not exclude the possibility of identifying scribes 1 and 14 as the same person, despite the fact that they belong to different graphic typologies, and the quality of execution and treatment of single letters also differs between the two. Williams—who was the first scholar to point out the considerable graphic differences between the scribes of NHC IV, V, VI, VIII and IX—suggests plausibly that scribes 6 and 10, as well as 7, 8, 11 may be grouped together on palaeographical grounds, but he underestimates the importance of the stylistic aspect when he hypothetically

41 Schubart 1911, pl. 43.

suggests that scribes 3 and 14 are the same person. The first writes in a mixture of Biblical majuscule and Alexandrian majuscule, whereas the second uses a Biblical majuscule, albeit crudely executed.

As far as the chronological sequence is concerned, the proposals made here on the basis of graphic and stylistic characteristics range from the beginning to the end of the fourth century, and as such do not vary from the conclusions of earlier studies. It is of interest, however, to connect these datings with certain palaeographical features.

The graphic typologies found (Table 2) and the differing qualities of execution reveal these scribes to have been working wholly within Greek-Coptic scribal culture, even though particular features are present which enable us to distinguish between specifically Greek and Coptic ambiences. The 'Alexandrian stylistic class' found in the NHC echoes for the most part the mature graphic features found in Greek manuscripts of the period although one feature stands out which distinguishes its use from the Greek ambience: the alternation, not always consistent, of thin strokes (horizontal and oblique ascending from left to right) with thick strokes (vertical), and the variation from minimum to maximum thickness in the oblique strokes descending from left to right. These features are not found in Greek manuscripts of this period. Guglielmo Cavallo has said that in the Greek ambience '[t]he chiaroscural effects of thick and thin strokes are caused [...] not so much by the angle of the pen (in any case the letters are written with a more or less rigid pointed calamus, not capable of creating a marked contrast between thick and thin strokes) but rather by the bending and overlapping of lines in the play of loops and the deliberate insertion of shading'.[42]

In actual fact, the terminal shadings are absent in the Alexandrian class found in the NHC and perhaps their absence can be explained by the treatment of the thick and thin strokes mentioned above: the distinctive ornamental function of the terminal shadings has been replaced by the chiaroscural alternation of thick and thin strokes. Both a wider and more focussed investigation into this phenomenon in Coptic scribal culture, hitherto unattempted, could identify the truly distinctive elements in this script in its various historical phases and help us to separate out the features which emerge from innovative practices in relation to Greek scribal culture.

The Biblical majuscule found in the NHC follows the chronological phases of the corresponding writing style in the Greek-speaking world, though it should be pointed out that the quality of execution is fairly low. This confirms

42 Cavallo 1975, 30.

the findings of a specific investigation on Coptic Biblical majuscule:[43] the general development of this writing in Coptic-speaking areas appears to follow the same general tendencies and chronological stages we find in Greek-speaking areas, at least over the course of the fifth century until the early sixth century. From about the first half of the sixth century we begin to see signs of a special, more independent interpretation of this style of writing in Coptic areas.

Composite writing styles, which combine Alexandrian and Biblical majuscules, are of great interest. Jean Irigoin referred many years ago in his essay on Alexandrian majuscule[44] to a group of Greek and Coptic manuscripts attributed to the fifth and sixth centuries (for example P. Vindob. K 15, TM 61745, Vat. Borg. Copto 109/65, LDAB 2898, P. Vindob. G 19802, LDAB 3049, P. Berol. 13994, LDAB 3310) in a composite writing style which can be seen as representing the emergent phase of a 'canonical' Alexandrian majuscule as this developed from an ulterior form of Biblical majuscule. Guglielmo Cavallo on the other hand, in suggesting that the origins of Alexandrian majuscule can be reconstructed on the basis of second-century manuscripts,[45] regarded these 'hybrid forms' as a product of the influence of the ultimate bookhand, as the fifth- and sixth-century Biblical majuscule undeniably was, on a writing style which was 'still generically calligraphic': '[...] it represents a compromise between forms that belong to the writing styles generally found in the fifth and sixth centuries, and which scribes tend to practise spontaneously, and the modalities and characteristics of a style such as Biblical majuscule which, while no longer current, still had the weight of Christian tradition and doctrine behind it and was therefore an inevitable model for scribal imitation'.[46]

However, what emerges from the present study of the NHC is that, in reality, a distinction needs to be drawn between these composite writing styles: there are manuscripts in which Alexandrian majuscule shows the influence of Biblical majuscule and there are others in which the contrary is found. These are different phenomena: the basic graphic style is either Alexandrian or Biblical majuscule onto which stylistic features or certain forms of pen-stroke execution have been grafted. Those graphic styles which are still substantially Alexandrian employ a contrasting chiaroscuro which is characteristic of Biblical majuscule, while in those which follow the overall graphic structure of Biblical majuscule certain letters with typical Alexandrian majuscule forms (*alpha*, *mu*,

43 See the *Coptic Biblical Majuscule* chapter in this volume.

44 Irigoin 1959a, 41–44.

45 Cavallo 1967a, 113–117; Cavallo 1975.

46 Cavallo 1967a, 117.

upsilon) have been introduced. Examples of the first class include the fifth- or sixth-century fragment of Qasr Ibrim containing the *Gospel of Saint Mark* (Cairo, Coptic Museum, inv. 6569 + 6570 + 6571; LDAB 2912),[47] the sixth-century fragment of St Paul's *Second Letter to the Corinthians* (P. Vindob. G 19802;[48] LDAB 3049), and the sixth-century fragment of *Exodus* (P. Berol. 13994;[49] LDAB 3310); while for the second—in addition to early testimonies such as the Heraclides Ponticus (P. Oxy. IV 664 + P. Oxy. L 3544; LDAB 1091), attributable to the early third century,[50] and Julius Africanus, *Kestoi* (P. Oxy. III 412; LDAB 2550), mid third century,[51] in which elements pertaining to two different graphic canons coexist—one should mention scribes E and F in the *Codex Visionum* (P. Bodmer XXIX + XXX–XXXVII + XXXVIII; LDAB 1106), attributable to the fourth or fifth century,[52] and the fragment of *Psalms* (P. Mich. III 132; LDAB 3243), datable to the fifth century.[53]

This second class enjoyed more success: as early as the third and fourth centuries there are examples, albeit only a handful, of its use in both the Greek and Coptic-speaking areas, while from the fifth century onwards in the Coptic world it started to become a writing style in the proper sense of the term, described by Viktor Stegemann as the 'dicker Stil'[54] and by other modern Coptic scholars as the

47 Plumley / Roberts 1976, including pls 1–2; Crisci 1996, 119–121, pl. XCVIII.

48 Cavallo / Maehler 1987, 84–85 and pl. 38a; Schefzyk 2006, 117 no. 50.

49 BKT 8, pl. 2; Cavallo 1967a, pl. 103 b; Cavallo / Maehler 1987, 84–85 and pl. 38b. Guglielmo Cavallo and Herwig Maehler refer to the script of the last two fragments as an 'hybrid script', which they believe was used for writing Coptic and bilingual Greek-Coptic texts.

50 P. Oxy. L, pl. XI; Orsini 2005a, 91–93. The text was probably written by a single scribe, despite the discernible presence of small variations in the writing of some letters: within a writing system based on a Biblical majuscule, attributable to the beginning of the third century, we find letters such as *mu* written in concave strokes, all concave, and *upsilon* written in two strokes and shaped as a Latin *V* or in three strokes, the third short and vertical at the basis, occasionally substituted by a thick stroke.

51 P. Oxy. III, pl. V. Its script can be assigned to the Biblical majuscule canon, with *mu* written in three concave strokes, and *upsilon* in the shape of a 'horn': see Crisci 2005, 111, pl. 4.

52 The division of hands considered here follows the distinction proposed by Cavallo in P. Bodmer XXXVIII, 116–124. See also P. Bodmer XXIX, 99–117; P. Bodmer XXX–XXXVII, 5–7; Crisci 2004, 115–122, pls 1–4. These two hands used a Biblical majuscule reintroducing *alpha* and *mu* in Alexandrian style.

53 In the graphic structure of Biblical majuscule, looped *alpha* and *mu* in three strokes, with a large central bow, were introduced.

54 Stegemann 1936, 14. It is worth noting that Stegemann's 'dicke[r] Typus des Bibelstils' or, in more general terms, 'dicker Stil' refer to a second 'phase' of Biblical majuscule beginning from the fifth and sixth centuries. He also extended the same description to include a graphic style that combined elements of Biblical majuscule with Alexandrian majuscule (see Stegemann

'thick-and-thin style'.[55] This can clearly be seen in such manuscripts as Lond. Orient. MS 9035 (13) (fifth century; LDAB 108459);[56] hands A and C in Wash. Freer Copt. 1 (late fifth century; LDAB 107936);[57] New York, Pierpont Morgan Library, 664 A (4), ff. 1–2 + Paris. Copte 129[7], f. 35 + Copte 128[8], ff. 121–122, 140, 157 + Copte 129[9], ff. 49, 65, 76 + Copte 120[10], f. 209 + Copte 132[2], f. 60 + Vat. Borg. Copt. 109, cass. VII, fasc. 65, ff. 1–21 (fifth–sixth century; LDAB 2898);[58] Lond. Orient. MS 14149 (13–27) (fifth-sixth century; LDAB 108310).[59] Yet it is also clear that this 'compromesso tra forme', to use Cavallo's expression,[60] can be documented as early as the third and fourth centuries and is not only characteristic of the general writing styles in the fifth and sixth centuries. The Nag Hammadi codices, together with the other Greek manuscripts we have cited, enable us to document the early phase of a phenomenon which subsequently developed in various ways and which, above all for Coptic, gave rise to a distinct writing style which I propose should be called the 'mixed style'.[61]

One aspect of the Nag Hammadi codices which has been much discussed relates to the documents found as waste in the bindings of the codices. For a long time these have been used as elements with which to date the manuscripts in the

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1936, pls 10.2, 15.2, 17). From a scientific point of view, in fact, 'dicker Stil' cannot be used to describe both late Biblical majuscule and one other writing style that does not belong to the canon of Biblical majuscule, simply because the two scripts share an artificially exaggerated chiaroscuro effect. These styles present different letter strokes and forms and, consequently, they must be considered as distinct scripts. Indeed, the mixed style script is more correctly described as '[...] mixed types of script that are a kind of compromise between Biblical majuscule and Alexandrian majuscule' in Kasser 1991f, 177.

55 It would also be worth reassessing the expression 'thick-and-thin style' frequently used by modern Coptologists to describe writing 'in which vertical strokes are thick and horizontal strokes are thin. The style is common especially in scripts with wide *epsilon*, *omicron*, *sigma*, and is characteristic of e.g. the great Biblical uncial style' (Layton 1987, LXIV). As a result, the expression 'thick-and-thin style' is used in Layton's catalogue to describe Biblical majuscule (e.g. no. 8, pl. 1.2), the mixed style (e.g. no. 23, pl. 2.2), and also Alexandrian majuscule influenced by Biblical majuscule in the structure of its letters, the latter described by Layton as 'tending towards thick-and-thin style' (e.g. no. 11, pl. 1.7).

56 Layton 1987, 42, no. 39, pl. 9.3.

57 Worrell 1923, XV–XVIII, 1–106, pls I–IV: Worrell identified three hands (A, pp. 18–104, l. 3 a, 116–117, 126–237, 248–252; B, pp. 104, l. 3 b–115, 118–125, 238–247; C, pp. 253–258), although he advances the doubtful conjecture that 'the whole manuscript is from one hand' (Worrell 1923, XVI); *Biblia Coptica* 1.4 (2000), sa 116, pl. 6.

58 Follieri 1969, 13–14, pl. 4; *Biblia Coptica* 3.1 (2001), 504, pl. 2.

59 *Biblia Coptica* 3.1 (2001), 510, pl. 4.

60 Cavallo 1967a, 117.

61 This style is not to be mistaken for Turner's 'Formal Mixed': see Turner 1987, 26.

volumes in which they have been found.[62] In actual fact there are only a few such documents with a more or less explicit date. From the binding of NHC V come the two Greek documents P. Nag Hamm. 22 (official accounts; TM 15621)[63] and 23 (fragments from accounts; TM 32388),[64] both of which were written at the time when the Thebaid was divided into two administrative districts (ἐπιτροπαί) and can therefore be dated to the period between 298 and 323 CE. Several Greek fragments, on the other hand, have been found in the binding of NHC VII: P. Nag Hamm. 62 (a sale contract; TM 30162),[65] which might have been drawn up under the consulship of Domitius Zenofilus (333 CE) or Tettius Facundus (336 CE), although the periods of the reign of Aurelian or the rebel Domitius Domitianus or the consulate of Flavius Domitius Leontinus (344 CE) are also possible alternatives; P. Nag Hamm. 63 (loan of wheat; TM 15622)[66] is dated 20 November 341; P. Nag Hamm. 64 (loan of wheat; TM15623)[67] is dated 21 November 346; P. Nag Hamm. 65 (act of guarantee; TM 15624)[68] is dated 7 October 348.[69] If these dates are compared with the hypothetical dating for the manuscript texts, then in the case of NHC V the documents in the binding indicate a period between 298 and 313 CE and the text itself can be dated to the first half of the fourth century; for NHC VII the documents in the binding indicate a period between 333 and 348 CE and the text itself can be dated to the second half of the fourth century.[70] Both cases show a broadly chronological coherence, with periods of time from a couple of decades to a half century separating the documents used in the bindings and the texts themselves.

Yet, following the work of Ewa Wipszycka,[71] it should be pointed out that the bindings of the NHC do not conform much to our idea of a binding, being more like loose covers or jackets which could be used for various codices. As a result, the link between the bindings and the work they contain need not be as close as we thought: the bindings were not necessarily made in the same place and at the

62 See the edition of Greek and Coptic documents in P. NagHamm.

63 P. NagHamm., 25–30.

64 P. NagHamm., 30–33.

65 P. NagHamm., 52–53.

66 P. NagHamm., 53–56.

67 P. NagHamm., 56–57.

68 P. NagHamm., 57–58.

69 Internal textual elements suggest a date between the death of Origen (254 CE) and the Council of Nicaea (325 CE) for the composition of the text in NHC VII: see Peel 1996, 272–274.

70 Given the relationship between scribe 9 and scribes 1 and 2, what is stated here for NHC VII is also valid for NHC I and XI.

71 Wipszycka 2000.

same time as the production of the codices.[72] Furthermore, the fragments of documents which have been extracted from the *cartonnage* of these bindings could have come from deposits of waste paper acquired in bulk by merchants; this might explain the mix of different types of documents (tax documents, letters, private papers) which have nothing to do with each other but which are sometimes used in the same binding. One possible explanation for the presence of letters from monks among this material is that they made the *cartonnage* themselves using material bought in from a seller of waste paper together with their own documents which were no longer useful. In Wipszycka's view, however, another hypothesis is possible: the documents of the monks may have come into the hands of the craftsman commissioned to prepare the bindings, who had also acquired the waste paper from a dealer. In other words, the monks were selling documents they no longer needed to a dealer in waste paper. Such a hypothesis would weaken even further the idea that there is a direct connection between the NHC and a monastic ambience.[73] It is evident that the hypothesis that a waste paper dealer was involved 'demands caution in all reasoning concerning the date of when the covers were made on the basis of the dates mentioned in the documents from the papyrus stuffing'.[74] The bindings could have been made later than the composition of the texts they contain.

Finally, we must deal with the question of those cases where there is a change of scribal hand within a codex. In NHC I up to line 24 on page 43 scribe 1 finishes tract I, 3 (*The Gospel of Truth*); from line 25 onwards (after an ornamental line drawn in ink) the second hand, scribe 2 (the same hand we find in NHC XI, pp. 1–44), takes over to write a new text (I, 4 *Treatise on the Resurrection*). This scribe writes until line 8 of p. 50 where the rest of the page is left blank, and the first scribe starts a new text (I, 5 *The Tripartite Tractate*) at the top of the following page. Pp. 43–44, like pp. 50–51, form part of the first gathering of NHC I.[75]

In NHC XI scribe 2 wrote up to p. 44 (the same scribe who wrote NHC I, pp. 43, l. 25–p. 50, l. 18) while from p. 45 onwards scribe 9 takes over (the same scribe who wrote NHC VII). There is also a new text: on p. 44 tract XI, 2e (*On the Eucharist* E) begins and ends and from p. 45 tract XI, 3 (*Allogenes*) begins. At the end of XI, 2e there is a *coronis* and a small space left blank.

In these two codices the change of hand coincides with a change in text. Furthermore, the transitions are marked graphically (an ornamental line, a

72 See also Lundhaug / Jenott 2015, 126–127, 139.
73 See also Lundhaug / Jenott 2015.
74 Wipszycka 2000, 190.
75 NHC 1984, 41.

coronis), by *agraphon* or by a change in page. This leads one to suppose that there was a planned division of the work and means that NHC I, VII and XI and scribes 1, 2, 9 are closely connected. From a graphic point of view, the three scribes are very interesting: they adopt styles of writing which imitate Biblical majuscule, the transition between severe style and sloping pointed majuscule, as well as a mixture of Alexandrian majuscule and Biblical majuscule. If the three scribes were part of a scriptorium then it was one which was capable of employing different writing styles.

In NHC II the scribe who wrote the first eight lines on p. 47 (scribe 4) has continued the same text (II, 2 *The Gospel of Thomas*) written by the main scribe (scribe 3) without any break. This brief intervention does not allow us to form any hypothesis on the nature of the collaboration between the two scribes: what is clear is that scribe 4 is less expert than scribe 3, even though he attempts to apply the rules of the Biblical majuscule canon more closely, suggesting that his intervention was an attempt to imitate, almost as if he was practising.

As far as the codicological aspect is concerned (Table 3), taking into consideration the main material features (type of gathering, dimensions, size and proportion) all the NH codices are largely uniform. Almost all consist of a single gathering, except for NHC I, which is made up of three irregular gatherings.[76] As for the size (W+H) this varies between 365 mm and 465 mm, in other words completely within the parameters of average size.[77] The proportions of the pages (W/H) vary between 0.47 and 0.73 with a clear preference for narrow proportions, in line with the rest of Greek and Coptic papyrus production. [78]

In conclusion we can say that the palaeographical and codicological features of the NHC show that the production of this group of manuscripts was planned and carried out in a largely uniform way.

76 Krause 1962, 123–124; NHC I (1977), XVII, XXI, XXV; Turner 1977, 60. On the gatherings of NHC XIII, see NHC XI–XII–XIII (1973), XV, XVII; Turner 1990, 359–360; Turner 1977, 60.

77 Bozzolo / Ornato 1980, 217–220 (small size up to 320 mm; medium-small size between 320 and 490 mm; large size over 490 mm); Maniaci 2002, 85 (small size up to 250 mm; medium size between 250 and 500 mm; large size over 500 mm).

78 For Greek manuscripts, see Maniaci 2002, 132–133.

1.6 Tables

NHC	Puech	Doresse[79]	Krause	Emmel[80]	Williams	Khorsroyev[81]	Camplani	Orsini
I	**1**: pp. A–43, l. 24; 51–138; **2**: pp. 43, l. 25–50, l. 18	**1**: pp. A–43, l. 24; 51–138; **2**: pp. 43, l. 25–50, l. 18	**1**: pp. A–43, l. 24; 51–138; **2**: pp. 43, l. 25–50, l. 18	**1**: pp. A–43, l. 24; 51–138; **2**: pp. 43, l. 25–50, l. 18	**1**: pp. A–43, l. 24; 51–138; **2**: pp. 43, l. 25–50, l. 18	**1**: pp. A–43, l. 24; 51–138; **2**: pp. 43, l. 25–50, l. 18	**1**: pp. A–43, l. 24; 51–138; **2**: pp. 43, l. 25–50, l. 18	**1**: pp. A–43, l. 24; 51–138; **2**: pp. 43, l. 25–50, l. 18
II	3	3	3	**3**: pp. 1–46; 47, l. 8–145; **4**: p. 47, ll. 1–8	**3**: pp. 1–46; 47, l. 8–145; **4**: p. 47, ll. 1–8	**3**: pp. 1–46; 47, l. 8–145; **4**: p. 47, ll. 1–8	**3**: pp. 1–46; 47, l. 8–145[82]; **4**: p. 47, ll. 1–8[83]	**3**: pp. 1–46; 47, l. 8–145; **4**: p. 47, ll. 1–8
III	4	4	4	5	5	5	4	5
IV	5	5	5	6	6	6	**5**[84]	6
V	5	5	5	7	7	6	6	7
VI	5	5	5	8	8	7	7	8

79 Doresse 1958, 164–167, according to whom 'palaeography evidence is [...] the most infallible criterion for the dating of our manuscripts' (162), grouped the hands in 4 different strands of graphical style: 'A. A cursive script, flexible and without pretention [NHC III–IX]; B. calligraphic script, rigid, with emphasised thick strokes [NHC II, XI–XIII]; C. script in which the letters are rigid, thick, and end with terminal thickenings [NHC I, XI]; D. sloping script, artificially written, having in some sense the function of italic [NHC I, XI]'.

80 According to Emmel 1978, 27–28, scribes 1 and 14 are identifiable as a single copyist, scribes 4 and 13 write in very similar hands, and the writing styles of scribes 6, 7, 8, 10 and 11 are very close, perhaps because they were all educated in the same writing school.

81 Regarding NHC IV, V, VI, VIII and IX, Khorsroyev 1995, 20–22, 142, states that they are probably not copied from more than two scribes; manuscripts NHC X and NHC II (p. 47, ll. 1–8) 'might possibly show evidence of the same scriptorium: two (?) scribal hands' (142).

82 Camplani 1997, 128: 'in NH II and NH XIII the same scribe's hand is recognisable'.

83 Camplani 1997, 128, believes that the style of scribe 4 is 'very close' to NHC X.

84 Camplani 1997, 129–130, agrees that NHC IV, V, VI, VIII and IX emerge 'from the same school and probably the same scriptorium'; furthermore, he proposes the following groups: 'VI and IX on the one hand, perhaps copied by the same scribe, IV and VIII on the other, and V in an intermediate position'.

NHC	Puech	Doresse[79]	Krause	Emmel[80]	Williams	Khorsroyev[81]	Camplani	Orsini
VII	6	6	6	9	9	8	8	9
VIII	5	5	5	10	10	6	5	10
IX	5	5	5	11	11	7	7	11
X	1	1	1	12	12	9	**9**[85]	12
XI	**2**: pp. 1–44 **6**: pp. 45–72	**2**: pp. 1–44 **7**: pp. 45–72	**2**: pp. 1–44 **6**: pp. 45–72	**2**: pp. 1–44 **9**: pp. 45–72	**2**: pp. 1–44 **9**: pp. 45–72	**2**: pp. 1–44 **8**: pp. 45–72	**2**: pp. 1–44 **8**: pp. 45–72	**2**: pp. 1–44 **9**: pp. 45–72
XII	**7**[86]	8	7	13	13	10	10	13
XIII	8	9	**8**[87]	14	14	3	3	14

Tab. 1: Hands division in NHC[88]

85 Camplani 1997, 129: 'NH X [...] can be related to NH II f. 47 ll. 1–8, that is to say, to the style of the same scribe who collaborated with the scribe who wrote NH II and NH XIII. Perhaps the scribe of NH X belonged to this scriptorium, either coinciding with the scribe of NH II f. 47 ll. 1–8, or belonging to the same school'.

86 Puech 1950, 110: 'the script of this is similar to that in our category III [= NHC II]'.

87 Krause 1963, 110–111, believes the hands of NHC XIII and NHC II to be very similar.

88 References to the page number in NHC follows the order reconstructed and established in the *Facsimiles*.

Scribes	NHC	Graphical styles	Proposed dating
1	I, pp. A–43, l. 24; 51–138	BM	4th cent., 2nd half
2	I, pp. 43, l. 25–50, l. 18; XI, pp. 1–44	Severe style > SOM	4th cent., end
3	II, pp. 1–46; 47, l. 8–145	BM	4th cent., 2nd half
4	II, p. 47, ll. 1–8	BM	4th cent., 2nd half
5	III	AM	4th cent., 1st half
6	IV	AM	4th cent., 1st half
7	V	AM	4th cent., 1st half
8	VI	AM	4th cent., 1st half
9	VII; XI, pp. 45–72	AM + BM	4th cent., 2nd half
10	VIII	AM	4th cent., 1st half
11	IX	AM	4th cent., 1st half
12	X	BM	4th cent., end
13	XII	BM	4th cent., end
14	XIII	BM + AM	4th cent., early

Tab. 2: Scribes and styles in NHC
BM = Biblical majuscule; AM = Alexandrian majuscule; SOM = sloping ogival majuscule.

NHC	Gatherings	Dimensions W×H	Size (mm)	Proportion
I	3	144×300	444	0,48
II	1	158×284	442	0,55
III	1	157×257	414	0,61
IV	1	132×233	365	0,56
V	1	133×240	373	0,55
VI	1	150×280	430	0,53
VII	1	175×290	465	0,60
VIII	1	[150×242]	392	0,62
IX	1	152×263	415	0,57
X	1	122×260	382	0,47
XI	1	143×282	425	0,50
XII	1	[190×260]	450	0,73
XIII	1	138×272	410	0,50

Tab. 3: Main codicological features of NHC.

2 The Scripts of the Bodmer Papyri[89]

Since the first published editions of the Bodmer papyri in 1956 interest in the different (Greek and Coptic) scripts found in them has always been subordinated to the philological and chronological aspects of each individual papyrus. Such an approach is not exclusively the responsibility of the editors, who often provided general palaeographical descriptions while neglecting an overall view of the scripts. Part of the responsibility must be attributed to palaeographers themselves; if one looks at the reproductions of papyri in the anthologies of facsimiles of Greek manuscripts published since the 1950s (Table 4),[90] it is clear that only some of the Bodmer papyri (and always the same ones) have been reproduced. For all those working on the history of Greek scripts, the Bodmer papyri have not been of particular interest. Yet, on the contrary, the sheer range of scripts found in these nineteen codices is of great interest both for the variety of their graphic typologies as well as the differing qualities of their execution. As laid out in Table 5,[91] the script most often found in this group of papyri is Biblical majuscule, both in its 'normalised' form (six examples) and the various derivatives modelled on it (4 examples). Moreover, it should be noted that it is above all the manuscripts in Coptic which use the Biblical majuscule. The Alexandrian majuscule on the other hand is less frequent: there is a single example of its 'normalised' form and another four for scripts which belong in this stylistic category. In addition we

89 The expression 'Bodmer papyri' used in the chapter refers to a group of 19 codices listed in Kasser 1991c: P. Bodmer III (LDAB 107758), VI (LDAB 107761), XVI (LDAB 108535), XVIII (LDAB 108536), XIX (107759), XXIII (LDAB 108542), XL (LDAB 108548), XLI (LDAB 108121), XXIV (LDAB 3098), XIV–XV (LDAB 2895), II + P. Köln V 214 + P. Chester Beatty Ac. 2555 (LDAB 2777), P. Bodmer XXI + P. Chester Beatty Ac. 1389 (LDAB 108537), P. Bodmer XXII + Mississippi Coptic Codex II (LDAB 108176), P. Bodmer XXV+IV+XXVI + P. Köln VIII 331 + P. Duke inv. 775 (LDAB 2743), P. Bodmer XXIX + XXX–XXXVIII (LDAB 1106), P. Bodmer XLV + XLVI + XLVII + XXVII (LDAB 4120), P. Bodmer V + X + XI + VII + XIII + XII + XX + IX + VIII (LDAB 2565), P. Monts. Roca. inv. 128–178, 292, 338 (LDAB 552), Schøyen Collection MS. 193 + P. Chester Beatty 2026 (LDAB 107771). I am aware that different and larger reconstructions of this corpus have been proposed (see in particular Robinson 2013), but my preference for the list provided by Kasser primarily depends on the need to limit my study to a group of core manuscripts which are numerically manageable within the present publication; nevertheless, I do not rule out the possibility of widening my investigation further in the near future to include all the other manuscripts normally related—with more or less convincing arguments—to the group of the 'Bodmer papyri'. See most recently Fournet 2015.

90 The publication of facsimile collections of Coptic manuscripts, leaving aside those published before 1950 (i.e. Hyvernat 1888, Stegemann 1936), is limited to Cramer 1964, which does not reproduce any manuscript from the Bodmer Collection.

91 The table excludes P. Bodmer XLI, as yet unpublished.

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should note the presence of three important examples of the mixed style of Biblical majuscule and unimodular Alexandrian majuscule, found in both Greek and Coptic manuscripts but most prevalent after the fifth century in Coptic production.[92]

There are only a few examples of severe style, including the forms which belong to the phase of transition towards pointed majuscule (upright and sloping), found in three examples, and a handful of examples of documentary, cursive and informal scripts (four examples).

In terms of their chronology, these manuscripts can be attributed, on the basis of palaeographical evidence, to a broad period (Table 5), stretching from the third to the sixth century, with a peak of production in the fourth.[93]

On the basis of these general observations it is possible to state that:

1. the different styles of script found in the Bodmer papyri—from the more formal and set styles to those that use a more cursive *ductus*—show a highly variegated production;
2. the differing qualities of execution show that, in most cases, the producers of these manuscripts were not professional scribes but individuals whose writing abilities varied and who were producing books intended for practical use, by other individuals or groups, in daily life.

It should be added that—as far as present studies have established—there are no definite cases where the same scribe has been involved in the production of more than one manuscript.[94]

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92 Orsini 2008a, 143 n. 76; Orsini 2008b, 107–109, 112–115.

93 I propose the dating of manuscripts illustrated in Table 5 on the basis of my analysis of their scripts. One should keep in mind, though, that manuscript P. Bodmer XX is the only one which has a firm reference for its dating: it includes the *Apologia* of Phileas, who was martyred in 305 CE, thus establishing a *terminus post quem* for the manuscript. On the manuscript see *infra*. In a recent work Nongbri 2014 suggests a dating to the fourth century for P. Bodmer II, on the basis of a palaeographical comparison between P. Bodmer XX and two other papyri (P. Cairo Isid. 2 [a letter from the archive of Aurelius Isidorus, dated 298 CE; TM 10352] and P. Lond. VI 1920 [a letter belonging to the Greek-Coptic *dossier* from the monastery of Phathor, datable *c.*330–340 CE; TM 44659]). The two Bodmer papyri (II and XX) show two different graphic typologies, and therefore are not comparable, even if they were contemporary; more convincing is the comparison with the scripts of the two letters. Moreover, the dating to late fourth – early fifth century for P. Bodmer XXIII, which I already proposed in the past (see Orsini 2008a, 131–132), is seemingly confirmed by archival documents found in its binding (published as P. Bodmer LIV–LVI), probably datable to the first half of the fourth century (see Fournet 2015, 25–40).

94 See *infra* for the hypothesis presented here in relation to the comparison between one scribe of P. Bodmer XXV + IV + XXVI + P. Köln VIII 331 + P. Duke inv. 775 and the copyist of P. Monts. Roca inv. 128–178, 292, 338 (LDAB 552).

From the palaeographical perspective, it must be admitted that the Bodmer papyri form a *post hoc* assemblage of pieces from different periods, whose common element is the fact that they were found together and had possibly been put together by someone at some point in the past for a purpose the details of which remain unknown to us. In terms of their original production these manuscripts (either separately or as small groups defined on the basis of their textual, codicological or palaeographical homogeneity) were produced on their own; they are not elements which form part of a wider publishing project.

From the codicological point of view, three factors can be taken into consideration: the types of fascicules, the size and the proportion (Table 5).[95] For the fascicules, five of the codices consist of a single quire, while the others show a very wide range of types, using single bifolia, two bifolia, ternions and quaternions to quinions, eight and nine bifolia, often combining different sized quires within the same codex.[96] The size (W+H) varies between 237 and 460 mm, mostly falling within the range 300–400 mm. The proportion (W/H) ranges between 0.5 to 1 and over, with a high degree of variation.

It is helpful, by way of contrast, to recall the collection of the Nag Hammadi codices discovered in 1945 in southern Egypt in the same geographical area where the Bodmer papyri are said to have been found[97] and which, all datable to the fourth century, are close in the period of their production to many of the Bodmer papyri. The fourteen hands found in the thirteen Nag Hammadi codices belong prevalently to the Alexandrian stylistic class, apart from those which use Biblical majuscule and its related styles; only in a few isolated examples can we find a mixed style of Biblical majuscule and unimodular Alexandrian majuscule, as well as a type of script which belongs to the transitional phase between sloping severe style and sloping pointed majuscule.[98] From a codicological point of view, the Nag Hammadi manuscripts are much more uniform than the Bodmer group.

95 For the meaning of 'size' and 'proportion', see Bozzolo / Ornato 1980, 217–219; Maniaci 1996, 144. In relation to the Bodmer Papyri, see also the bibliological observations in Fournet 2015, 14.

96 Turner 1977, 58–64. For the terminology used in the description of different types of quires, see Maniaci 1996, 132–134.

97 For the history of the Nag Hammadi codices, see Robinson 2014, 1–119. On the different locations where the Bodmer Papyri were found, see Kasser 1988, 191–194; Robinson 2013, 15–35, 108–129.

98 See *The Scripts of the Nag Hammadi Codices* chapter, Tab. 2.

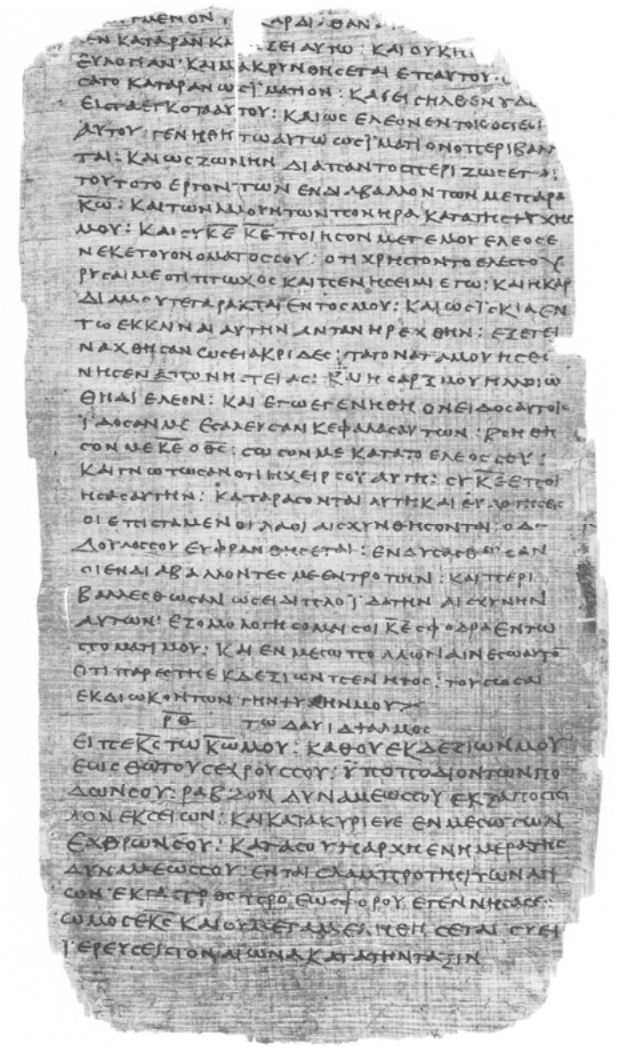

Fig. 16: P. Bodmer XXIV, f. 55r.

In short, the features we can identify in the Nag Hammadi codices—a more uniform selection of scripts, the presence of two scribal hands in several codices, a greater uniformity of codicological characteristics—are absent in the Bodmer manuscripts.

The comparison between the two groups makes it clear that no unified and coherently planned scribal project lay behind the production of the Bodmer

papyri and reinforces the hypothesis that they form a provisional and temporary assemblage of documents, unrelated as a whole.

In order to understand better some of the ways in which these manuscripts were produced it will be helpful to look at the codices which contain several hands. Specific indications can emerge from the observation of the forms of collaboration between scribes, the different styles of writing employed, and the strategies used to manage and coordinate the visual appearance of the texts and blank spaces.

Eight of the nineteen Bodmer papyri were written by more than one hand: in three of these ((P. Bodmer III; P. Bodmer XXI + P. Chester Beatty Ac. 1389; P. Bodmer XLV + XLVI + XLVII + XXVII) there is a sequence of successive hands, whereas in the remaining five (P. Bodmer V + X + XI + VII + XIII + XII + XX + IX + VIII; P. Bodmer XIX; P. Bodmer XXIV; P. Bodmer XXV + IV + XXVI; P. Bodmer XXIX + XXX–XXXVIII) the different hands seem to have been working at the same time. We will concentrate our analysis on these five codices.

We start with the most straightforward manuscripts, P. Bodmer XXIV and P .Bodmer XIX.

P. Bodmer XXIV is a papyrus codex in a single quire, of which 49 leaves have survived (some in a highly fragmentary state) and [41] bifolia have been reconstructed. It contains in Greek translation the text of *Psalms* 17–118. Two hands can be found: hand A copied ff. 1r–55r l. 30 (as far as the title of *Psalm* 109); hand B copied ff. 55r l. 31–59v (from the beginning of *Psalm* 109 to the end of *Psalm* 118). The exchange of hands takes place in the middle of f. 55r (Fig. 16). Both hands use a majuscule which belongs to the style of rounded and cursive scripts, with roots in documentary production and which forms the basis for the Alexandrian stylistic class. Possible comparisons are P. Oxy. X 1231 (Sappho; second century; Turner 1987, Pl. 17; LDAB 3893), P. Oxy. XVIII 2161 + PSI XI 1209 (Aeschylus, second century; Turner 1987, Pl. 24; LDAB 103), and above all P. Oxy. III 412 (Julius Africanus; *post* 227—*ante* 276 CE; Roberts 1956, Pl. 23a; LDAB 2550).[99] On the basis of these comparisons a cautious dating to the first half of the third century can be proposed instead of between the end of the third century and beginning of the fourth century, as the editor of the published volume has suggested.[100]

99 Hammerstaedt 2009, with Pl. 1; Wallraff / Scardino / Macella / Guignard (eds) 2012, xxxiii–xxxviii, figs 1–4. On the verso of the papyrus there is the copy of the will of an unidentified Hermogenes (P. Oxy. VI 907; TM 20370), dated 276 CE.

100 P. Bodmer XXIV, 22.

Fig. 17: P. Bodmer XIX, pp. ΡΞC′-A′.

P. Bodmer XIX is a parchment codex which in its present state consists of seven quires (a two-bifolia quire followed by six quaternions. It contains a section of *St Matthew's Gospel* in Coptic (13, 28–28, 20) and the initial section of the *Letter to the Romans* (1, 1–11, 3). Four hands can be identified: hand A has written the entire text from Matthew; hand B has written the last three leaves of the codex, containing the *Letter to the Romans* text; hand C has restored passages of text in the part written by A (on ff. 18r = p. 111, 23v = p. 122, 27r = p. 129); hand D has overwritten letters at several points in A's section.[101] If we exclude hands C and D therefore, which intervened subsequently to restore parts of the text which had been damaged, the change from hand A to B occurred at the point when one text concludes and another begins, in the final quire. Hand A finished Matthew's Gospel on the first column of the page numbered ΡΞC′ (166, the verso of the fifty leaf of the quire; in the second column there is only the final title in the middle of the page); hand B begins to write on the following page (numbered A'; the recto of the sixth leaf in the quire) the text of the *Letter to the Romans* (Fig. 17). That the two scribes collaborated on the production of the codex is also shown by the fact that both use similar decently formed Biblical majuscules, with some typical characteristics of Coptic Biblical majuscule such as the extension under the base line of the left to right descending stroke in *alpha*, *kappa* and *lambda*.[102] These forms of

101 P. Bodmer XIX, 19–22.

102 Orsini 2008a, 131–132, and in the present volume p. 121.

Biblical majuscule can be compared—as the editor has suggested[103]—with the writing found both in P. Berol. inv. 3259 (*Psalms*; end of fourth—beginning of fifth century; LDAB 107864)[104] or with P. Bodmer XXII + Mississippi Coptic Codex II (end of fourth–beginning of fifth century). A dating to between the fourth and fifth centuries can therefore be proposed for P. Bodmer XIX.

The other three codices written by several hands are more complex than the two manuscripts just examined.

P. Bodmer V + X + XI + VII + XIII + XII + XX + IX + VIII have all been traced to the same codex consisting of approximately 15 quires[105] and containing nine texts in Greek.[106] In codicological terms, how these pieces were put together is unclear. However, at least two main *nuclei* can be identified:[107] the first is formed of P. Bodmer V X, XI, VII, XIII, XII and the second of P. Bodmer XX and IX.

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103 P. Bodmer XIX, 19 n. 4.

104 Stegemann 1936, pl. 2.

105 According to published editions, the collation of the original codex is as follows: 1^6 (ff. 1–6 = pp. 1–12), 2^8 (ff. 7–14 = pp. 13–28), 3^8 (ff. 15–22 = pp. 29–44), 4^7 (ff. 23–29 = pp. 45–58), 5^6 (ff. 30–35 = pp. 59–[69–70]; p. 68 is followed by an unnumbered blank leaf [pp. 69–70]), 6^8 (ff. 36–43 = pp. 3–18), 7^8 (ff. 44–51 = pp. 19–34), 8^8 (ff. 52–59 = pp. 35–50), 9^7 (ff. 60–66 = pp. 51–64; wanting the last blank leaf of the original quaternion, without loss of text), 10^{10}(ff. [67]–76 = pp. [127–146]; ff. [67], [69], [74] have been reconstructed), 11^2 (ff. 77–78), 12^7(ff. 79–85 = pp. 1–13: wanting the first leaf of the original quaternion), 13^8 (ff. 86–93 = pp. 15–30), 14^2 (ff. 94–95 = pp. 31–34), 15^2 (ff. 96–97 = pp. 35–36 + two blanks). For a different reconstruction of the quire structure, see Nongbri 2015: highlighting the different direction of the papyrus fibres in pages ΛΑ→/ΛΒ↓ – ΛΓ→/ΛΔ↓ (a bifolium artificially reconstructed, with a papyrus strip glued to its lower edge) of P. Bodmer VIII, Nongri 2015, 172, formulates the hypothesis that: 'originally the last four leaves of P. Bodm. VIII formed the beginning of a quire (probably a ternion). At a subsequent stage, the bifolia of this quire were cut in half and the resulting loose leaves were joined serially, so that leaves ΛΑ/ΛΒ and ΛΓ/ΛΔ came to form a bifolium despite the different orientation of their fibres'. A different direction of the fibres is also found, however, in the following two leaves ΛΕ→/ΛC↓ – blank→/blank↓ (also linked by a papyrus strip at the lower edge), whereas, if the original quire had been a ternion, we should now find the direction of the fibres in the correct sequence ΛΕ→/ΛC↓ – blank↓/blank→, as the two leaves would have been the central bifolium in the quire. The present sequence of the fibres in the four surviving leaves suggests that the quire originally was a quaternion (formed of four bifolia), from which the last four leaves were excised and the remaining ones artificially linked together to form two separate bifolia.

106 *Nativity of Mary* (P. Bodmer V: pp. 1–49); *Apocryphal Epistles between St Paul and the Corinthians* (P. Bodmer X: pp. 50–57); *XI Odes of Solomon* (P. Bodmer XI: pp. 57–61 *l.* 2); *Letter of Judas* (P. Bodmer VII: pp. 61 *l.* 3–68); Melito of Sardis, *Passover Homily* (P. Bodmer XIII: pp. 1–63); liturgical hymn, fragment (P. Bodmer XII: p. 64); *Apologia* of Phileas (P. Bodmer XX: pp. [129–145] l. 5); *Psalms* 33,2–34,16 (P. Bodmer IX: pp. [146] + 2 loose leaves); *Letters* by St Peter (P. Bodmer VIII: pp. 1–30); see Wasserman 2005; Camplani 2015, 113–122.

107 Crisci 2004, 122–126.

Fig. 18: P. Bodmer V, p. A′.

The codices which form the first group were certainly part of the same codicological unit for the reason that the texts contained in them are continuous: the ends and beginnings of individual texts are found either on the same page (P. Bodmer X and XI, XI and VII) or on the recto and verso of the same leaf (P. Bodmer V and X, VII and XIII, XIII and XII). In this group three hands can be found: hand A wrote the entire text of the *Nativity*, consisting of the first three quires, up to the recto of the third leaf of the fourth quire (Fig. 18); on the verso of the same leaf hand B began the text of the *Apocryphal Epistles between St Paul and the Corinthians* and continuing up to the recto of the last leaf in quire 5 copied the texts of XI *Odes of Solomon* and the *Letter of Judas* (Fig. 19); on the verso of this leaf hand C wrote the title of the *Passover Homily* by Melito of Sardis and continued to copy as far as the verso of the last leaf of quire 9, with the fragment of a hymn (Fig. 20).

Hand A uses a formal round majuscule with a fluent *ductus*; hand B is an informal rounded majuscule, with many cursive and documentary features; hand C uses a style which belongs to the general category of Biblical majuscule and its

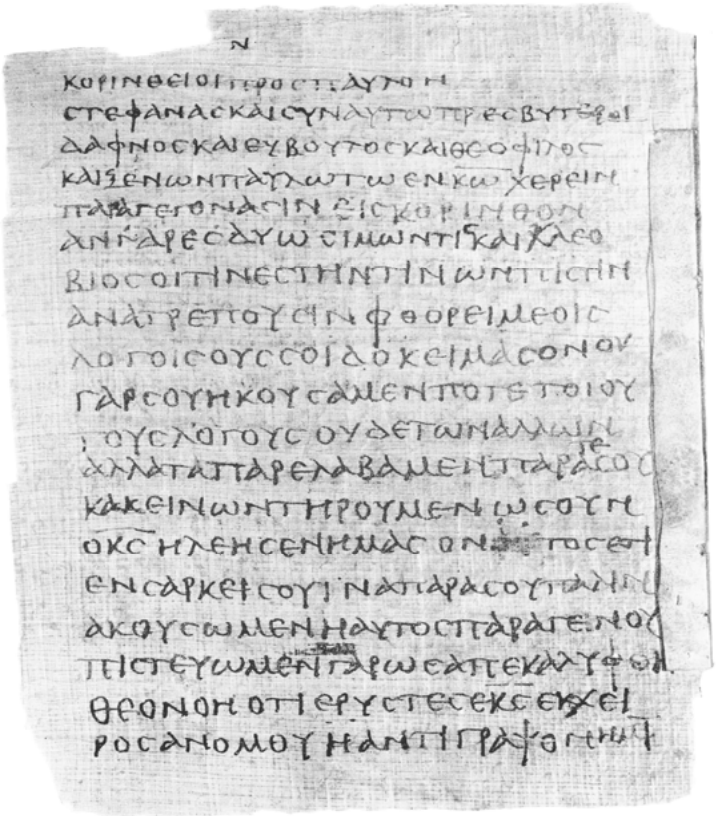

Fig. 19: P. Bodmer X, p. N′.

related styles. Hand A can be compared with P. Oxy. X 1250 + P. Oxy. LVI 3837 (Achilles Tatius; Seider 1970, Pl. XX, fig. 41; LDAB 10)[108], attributable to between the end of the third century and beginning of the fourth; hand B with P. Oxy. II 209 (*St Paul*; beginning of fourth century; Cavallo / Maehler 1987, Pl. 1a; LDAB 3025), P. Köln I 52 (offer of employment; 263 CE; TM 15463);[109] and hand C with P. Oxy. I 22 (Sophocles; fourth century; Turner 1987, Pl. 29; LDAB 3947).

108 Johnson 2004, 65 (Scribe B9).
109 Harrauer 2010, Pl. 175.

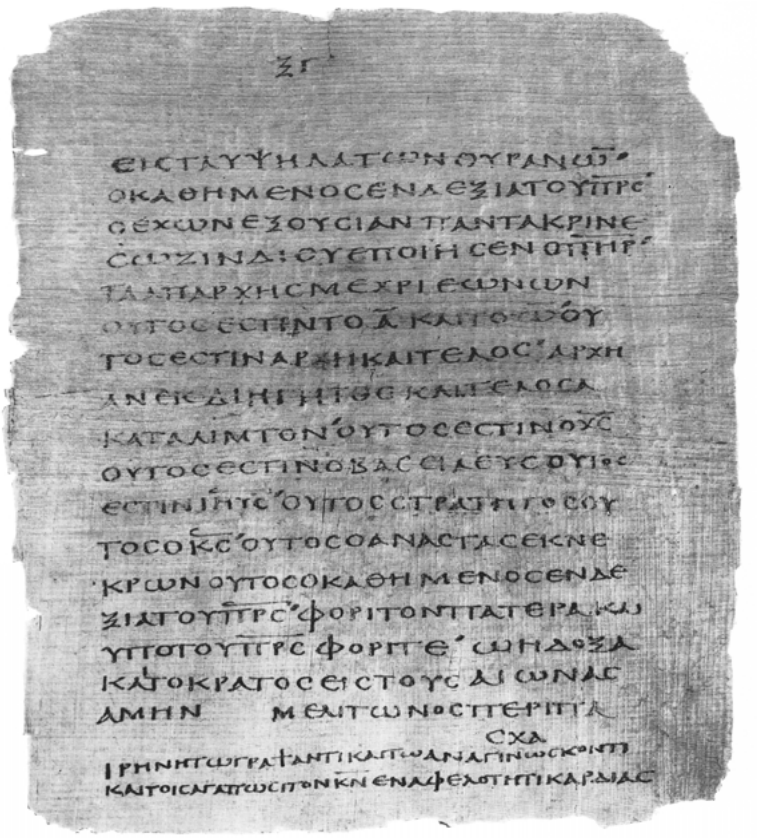

Fig. 20: P. Bodmer XIII, p. ΞΓ΄.

The second group is formed of P. Bodmer XX (*Apologia* of Phileas) and P. Bodmer IX (*Psalms* 33 and 34); these texts follow one another on the recto and verso of the last leaf of a quire in two different hands: hand D began to write the *Apologia* of Phileas on the recto on the first leaf up to the recto of the last leaf of a new quire (Fig. 21); another hand, E, starting from the verso of this same leaf began to write the *Psalms*, using two successive loose leaves (Fig. 22). It should be noted that P. Bodmer XX represents a *terminus post quem*, insofar as it contains the *Apologia* of Phileas, whose martyrdom can be dated to 305 CE:[110] this is important for the dating of hand D (a mixture of characteristics of Biblical and

110 See n. 93; Bausi 2015, 161–162.

Alexandrian majuscules) and hand E (close to the Alexandrian stylistic class) which can as a result be assigned to the middle or, at the latest, end of the fourth century. An extremely interesting comparison for hand D is found in the first hand in the codex P. Chester Beatty IX–X (*Ezechiel*, *Daniel*, *Esther*: only the text of *Ezechiel* has been written by the first hand; LDAB 3090), which—thanks to this comparison—could be dated to the middle or the second half of the fourth century. Hand E can be compared with the writing in P. Reinach II 69 (Homer; end of fourth century; Cavallo / Maehler 1987, Pl. 6a; LDAB 2156).

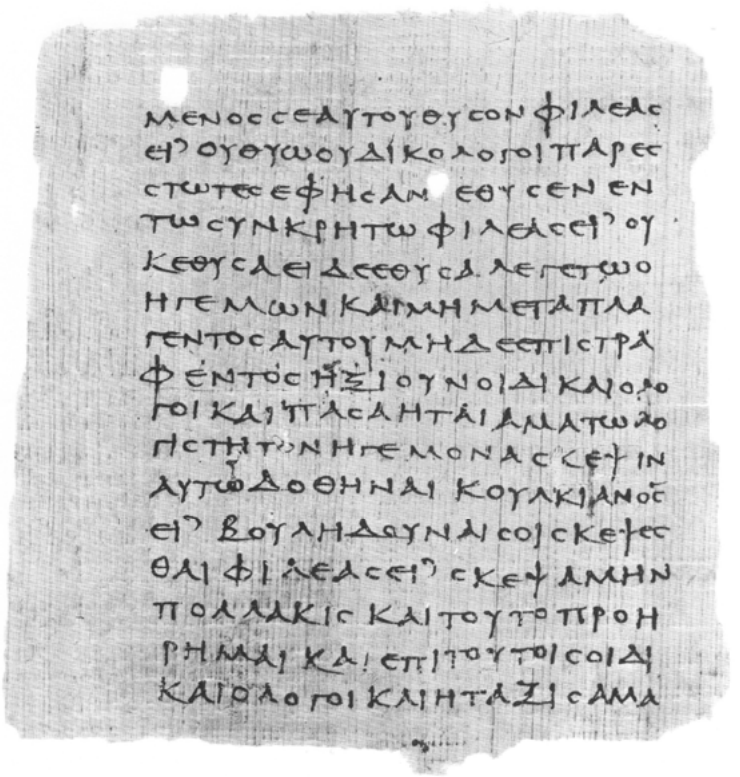

Fig. 21: P. Bodmer XX, p. [ΡΜΔ′].

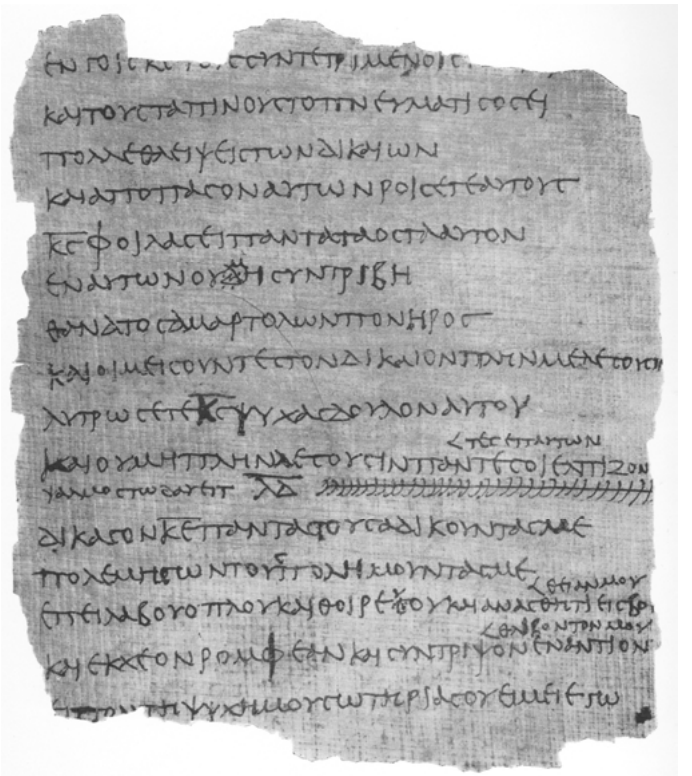

Fig. 22: P. Bodmer IX, first leaf, detached, verso.

Outside these two groups of codices there is P. Bodmer VIII (*Epistles* of Peter) in the Biblioteca Apostolica Vaticana.[111] It is made up of a quire of seven sheets, of four sheets and two bifolia. It should be remembered that this small codex has been regarded as the final piece in the reconstruction of a single codex including all nine Bodmer papyri on the sole and rather weak grounds that there are two blank pages at the end.[112] Yet, as the editor of the papyrus has acknowledged, the single pieces were originally independent of each other and were only put together subsequently. There is material evidence for this both in the two sets of holes for two different bindings (the original binding and the later one when the codi-

111 Reproduced in facsimile in Martini 1968a, Martini 2003.

112 P. Bodmer VII–IX, 9: 'at the end, there is a blank leaf, probably for protection: it therefore seems clear that Peter's *Epistles* were the last work to be copied in the compilation'.

ces were put together) and some page numbers (ΞΔ′ in P. Bodmer XII and ΡΛΕ′–ΠΛΣ′ in P. Bodmer XX) which are not in the hands of the scribes who wrote the texts but belong to a single later hand (possibly the man who organised the codices into one compilation?).[113] Thus the blank pages at the end of P. Bodmer VIII can be seen as the termination of this small codex when it was still separate.

Fig. 23: P. Bodmer VIII, p. A′.

Nevertheless, on closer examination it can be seen that the copy of the *Epistles* of Peter in P. Bodmer VIII (Fig. 23) was done by the same hand B which wrote P. Bodmer X, XI and VII, and the possibility therefore cannot be excluded—even in the absence of certain codicological evidence—that this codex is in some way connected with the first group of codices.[114]

P. Bodmer XXV + IV + XXVI + P. Köln VIII 331 + P. Duke inv. 775 is a papyrus codex composed of a single quire of [16] bifolia. It contains three comedies by Menander, *Samia*, *Dyskolos* and *Aspis*.[115] According to Carroll A. Nelson and Joanne L. Raymond four hands succeed each other in P. Bodmer IV:[116]

113 P. Bodmer VII–IX, 9.
114 Nongbri 2015, 172.
115 Martin 1960; Martin 1966; Kasser 1971.
116 Nelson / Raymond 1967.

- hand A, ff. 10r–17v l. 40 (= pp. 19–34 = pls 1–16 l. 40 in P. Bodmer IV);
- hand B, ff. 17v l. 41–18v end (= pp. 34–36 = pls 16 l. 41–18 in P. Bodmer IV);
- hand C, f. 19r complete (= p. 37 = pl. 19 in P. Bodmer IV);
- hand D, ff. 19v–20r (= pp. 38–39 = pls 20–21 in P. Bodmer IV).

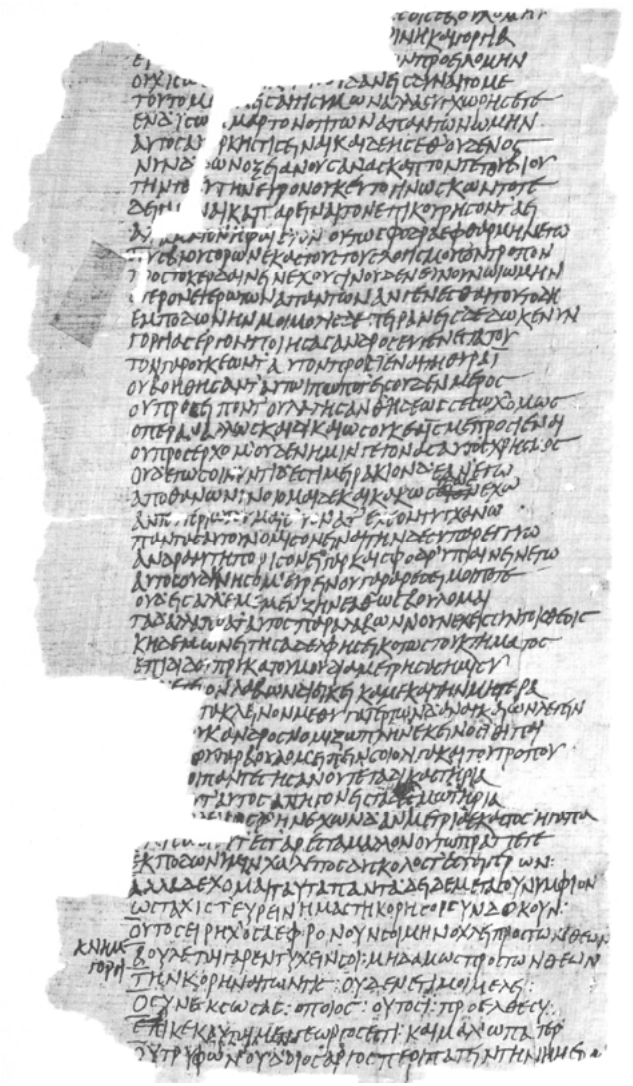

Fig. 24: P. Bodmer IV, f. 17v.

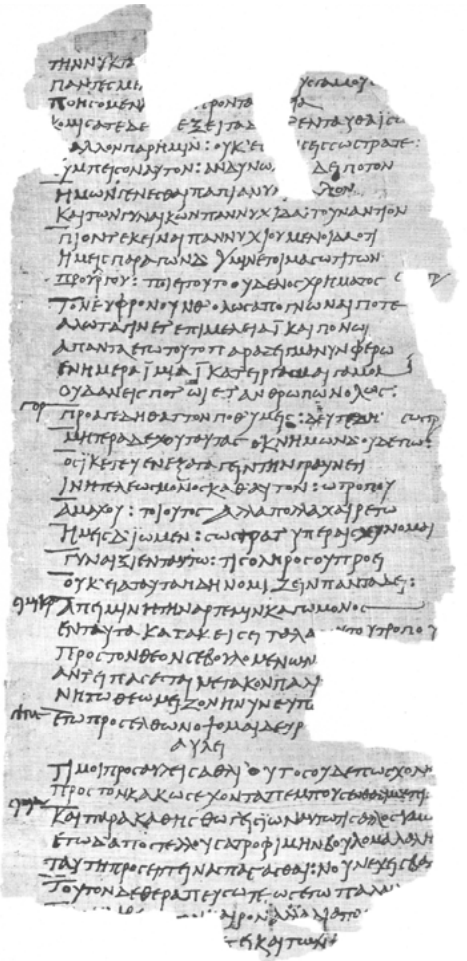

Fig. 25: P. Bodmer IV, f. 19r.

However, the hand found in the last two pages is none other than hand B, with all its distinctive characteristics. It can be seen that hand A has copied the entire text of the *Samia* (P. Bodmer XXV, ff. 1r–9v = pp. 1–18) and a large part of the *Dyskolos* (P. Bodmer IV, ff. 10r–17v l. 40) (Fig. 24); in the same text we find hand C which wrote a single page (P. Bodmer IV, f. 19r) (Fig. 25); finally, hand B returns for the last two pages of the *Dyskolos* (P. Bodmer IV, ff. 19v–20r) (Fig. 26) and begins a new text, *Aspis* (P. Bodmer XXVI , ff. 20v–31v = pp. 40–62).

Fig. 26: P. Bodmer IV, f. 20r.

Judging from the alternation of the hands, it would appear the scribes were working in close collaboration in writing the Menander texts. Moreover, they all show the same graphic characteristics belonging to the practices of documentary and bureaucratic writing: a majuscule sloping to the right, a small module, a rapid *ductus* and a noticeable use of cursive features; ligatures between letters are frequent and at the end of lines the final strokes of letters are extended into the margin. All these hands can be compared to the writing found in P. Oxy. VI 856 (Aristophanes; fourth century; Turner 1987, Pl. 73; LDAB 354), P. Oxy. XXXIII 2656 (Menander; fourth century; Turner 1987, Pl. 43; LDAB 2711), P. Berol. inv. 5003 + P. Cairo 140 + P. Gen. 4 158 (Olympiodorus; fourth–fifth centuries; Seider 1970,

Pl. XXXIII, Fig. 62; LDAB 5938). However, hand B in this codex can also be convincingly compared with another Greek text found in one of the manuscripts which, it has been suggested, has close links with the Bodmer papyri, the codex P. Monts. Roca inv. 126–178, 292, 338 (LDAB 552) in Barcelona. In this miscellany a single hand has been identified as being responsible for the texts in Greek (a euchologion and a list of words to be used in tachygraphy) (Fig. 27) and in Latin (Cicero, *In Catilinam* 6–8, 13–30; an acrostic hymn to the Virgin Mary; *Alcesti* in Latin hexameters; a story about the Emperor Hadrian).[117] The hand is the same graphic type as hand B in the Menander codex; furthermore, the two hands share some detailed features: for example, the strokes and the shapes of the letters *epsilon, zeta, kappa, sigma, upsilon* as well as a whole series of ligatures and linking strokes between letters.

Elias Lowe dated the Latin script found in the Barcelona codex—called 'antique half-uncial'—initially[118] to between the fourth and fifth centuries and later[119] to the second half of the fourth century.[120] Thus, if the perception that these two codices are related is a plausible hypothesis (could they have been produced in the same

117 Torallas Tovar / Worp (eds) 2006; Gil / Torallas Tovar 2010; Nocchi Macedo (ed.) 2014. Torallas Tovar / Worp (eds) 2006, 23, draw attention to a change in writing instrument in P. Monts Roca inv. 175v (Pl. XX), while excluding the possibility that this coincides with a change of hand; moreover, Nocchi Macedo (ed.) 2014, calls its Latin script a 'minuscola libraria primitiva', i.e. primitive minuscule bookhand, (51) and proposes a dating to the second half of the fourth century (57); it is worth pointing out that, in the description of the writing of the Greek portion of the codex, Nocchi Macedo interestingly proposes a comparison with P. Bodmer IV as well, although without a precise indication of which hand he is referring to (39). See also Crisci 2004, 129–132. In the two *tabulae ansatae* at the end of the Latin texts (*Catilinarie* and the story about the Emperor Hadrian) the character *Dorotheus* is mentioned: De Paolis 2000, 46 n. 25, suggests the identification of this name with the author of the two visions in P. Bodmer XXIX (Dorotheus could be identified with the presbyter Dorotheus, born in Antioch in 255 CE and martyred at Edessa in 362 CE); on this name and De Paolis's hypothesis, see Torallas Tovar / Worp (eds) 2006, 22–23 and nn. 12–13; Gil / Torallas Tovar 2010, 30–31; Nocchi Macedo (ed.) 2014, 136.

118 CLA XI (1966), no. 1650.

119 CLA Suppl. (1971), no. 1782.

120 Lowe (CLA XI [1966], no. 1683) proposed an interesting comparison between the Latin script of the Barcelona codex and the Latin portion in the bilingual codex P. Chester Beatty Ac. 1499 (CLA Suppl. [1971], no. 1683: second half of the fifth century, 'antique half-uncial'; LDAB 3030; digital facsimile: http://csntm.org/Manuscript/View/GA_P99): it is worth pointing out that the codex in the Chester Beatty Library has been associated (Robinson 2013, 68–71) with the group of the *Dishnâ papers* (see also Nocchi Macedo [ed.] 2014, 55–57). In my opinion, the Greek script in the Barcelona codex also shows a number of features similar to the Greek hand in P. Chester Beatty Ac. 1499, although single strokes (see *beta*, *zeta*, *eta*, *xi*) and ligatures (for example *epsilon + iota*) also suggest that we should exclude the possibility it was the same hand.

place or possibly even written by the same scribe?) then the Greek hand in the Menander codex—with the further support of the Latin script found in the Barcelona codex—could also be attributed to the second half or the end of the fourth century. Such a dating would move forward by approximately a century the traditional attribution of the Menander codex to the second half of the third century or beginning of the fourth century generally found in the related studies.[121]

The forms of collaboration between the scribes, the writing styles employed and the type of texts which have been copied indicate that the Menander codex was intended as an informal book, destined for a limited circle of readers, for whom secular culture must have played an important role.

Fig. 27: P. Barc. inv. 157b, f. 32v.

121 It is worth mentioning Frank Gilliam's statement (Gilliam 1978, 129–130) that 'the ornamentation at the end of the *Samia* [in P. Bodmer XXV] resembles that at the end of the First Catilinarian [in the Barcelona codex]', followed by the comment (n. 73) 'this should be taken into account in dating the Menander codex'. See also Cavenaile 1987, 103.

Fig. 28: P. Bodmer XXXVIII, f. 5v.

P. Bodmer XXIX + XXX–XXXVIII—the well-known *codex Visionum*—is a papyrus codex made up of a single quire of twelve bifolia, containing ten texts.[122] Hand A has written up to f. 5v (the first two visions of Hermas and the start of the third) (Fig. 28);

122 *Visions I–III* from the *Shepherd of Hermas* (P. Bodmer XXXVIII: ff. 1r–11v; lacking two leaves, [12] and [13], including the end of the III Vision and the IV Vision); *Vision of Dorotheus* (P. Bomder XXIX: ff. 14r–185 l. 21); *Poem on Abraham* (P. Bodmer XXX: ff. 18r l. 22–18v l. 17); *Poem ad Justos* (P. Bodmer XXXI: ff. 18v l. 18–20v l. 11); *Hymn to the Lord Jesus* (P. Bodmer XXXII: ff. 20v l. 12–21r l. 16); *The Murder of Abel* 1 (P. Bodmer XXXIII: f. 21r ll. 17–39); *The Lord Jesus to those who suffer* (P. Bodmer XXXIV: ff. 21r l. 40–21v l. 31); *The Murder of Abel* 2 (P. Bodmer XXXV: ff. 21v l. 32–23r l. 2); *Poem* (P. Bodmer XXXVI: ff. 23r l. 3–23v); *Hymn* (P. Bodmer XXXVII: f. 24rv). On this manuscript, see the articles in Hurst / Rudhardt 2002; see also Agosti 2015; Camplani 2015, 101–113.

Fig. 29: P. Bodmer XXXVIII, f. 6r.

hand B has followed on from f. 6r (Fig. 29), continuing the text of the third vision of Hermas, until f. 11v (where the text ends abruptly); perhaps a middle bifolium which contained the final part of the third vision and the entire fourth vision is missing. From f. 14r hand C takes over in copying the text of the *Vision of Dorotheus*, up to the end (f. 18v l. 21) (Fig. 30); from f. 18v l. 23 hand D intervenes in the transcription of the *Poem on Abraham* and *Poem ad Justos* (the title of the latter work has been written by hand E), up to f. 20v l. 11; from l. 12 on the same page (Fig. 31) hand E begins to copy the *Hymn to the Lord Jesus* and the *Murder of Abel* 1, until f. 21r l. 39; from l. 40 on the same page hand D has written only the initial part (the title and the first two lines) of *The Lord to those who suffer* (Fig. 32); on the verso of f. 21 hand F continues the same text until the end, the *Murder of Abel* 2, together with a Poem and a Hymn (Fig. 33).

Fig. 30: P. Bodmer XXIX, f. 18v.

The cross-overs between hands D, E and F suggest that these scribes were working in close collaboration, just as the alternation of hands A and B in their copy of the third vision of Hermas does: the change of hand coincides with a change of page. Hand C leaves off and D continues in the middle of a page.

Fig. 31 and 32: P. Bodmer XXXI-XXXII, f. 20v and P. Bodmer XXXII-XXXIV, f. 21r.

A detailed description of all these hands can be found in Guglielmo Cavallo's analysis; Cavallo suggests a dating to the beginning of the fifth century.[123] The present discussion merely draws attention to the fact that all four hands, A, B, C, and D, write in the general stylistic context of Biblical majuscule, though it should also be pointed out that hands A and D show a good level of skill while B and C are much less precise and more careless. Hands E and F, on the contrary, combine features from both Biblical majuscule and unimodular Alexandrian majuscule: in E *alpha* and *mu* are 'Alexandrian' while in F only *mu* is 'Alexandrian'.

123 P. Bodmer XXXVIII, 118–124.

Fig. 33: P. Bodmer XXXIV-XXXV, f. 21v.

The *codex Visionum*, therefore, was probably written at the beginning of the fifth century by six scribes working in close collaboration; the scribes abilities differed but they share the same type of writing. They do not appear to be professional scribes and perhaps not even apprentices learning to copy, but a group of individuals—perhaps members of some community—for whom, in the words of Edoardo Crisci, 'the act of writing must have been a form of edification, almost of moral obligation, of spiritual elevation, of a more intimate dwelling on texts which were

thought to possess particular ethical and doctrinal value.'[124] In short, the collaboration between the scribes and the thematic homogeneity of the texts transcribed in the codex suggest a religious community producing books for their own internal use.

The various situations we have described lead to two main types of collaboration:

1. several scribes alternating between themselves copied different texts: a. on the same page; b. on the recto and verso of the same leaf; c. on the verso of one leaf and the recto of the following leaf;
2. several scribes alternating between themselves copied the same text: a. on the same page; b. on the recto and verso of the same leaf.

In two cases the same scribes have changed round twice: these are hands B and C in P. Bodmer XXV + IV + XXVI, and hands D and F in P. Bodmer XXIX + XXX + XXXVIII, with brief passages. These consecutive alternations would suggest that the scribes were working in close collaboration.

These methods of working gave rise to different results:

– codices written in formal scripts by well-trained scribes, probably working on commission;
– codices written in informal scripts, intended for a limited circulation and for practical, daily use;
– codices which display a mixture of formal and informal scripts—at times more clearly belonging to a documentary environment—which would seem to reflect the activity of a group of individuals, perhaps members of a particular community, who practise writing as a form of moral education;
– codices written in documentary scripts properly so-called for what might be called educational purposes, perhaps in a school (either lay or religious);
– finally, codices which are the result of other codices, originally conceived as separate items, being bound together in one volume.

Once again we are faced with disparate materials. Each of these codices, written by more than one hand, can be seen as the result of processes of book production springing from different cultural motivations, carried out with differing levels of graphical and codicological expertise and intended for different recipients. It is evident that such a multiplicity of material does not reflect a coherent and harmonious unity of conception.

124 Crisci 2004, 121.

2.1 Tables

	Seider 1970	Metzger 1981	Cavallo / Maehler 1987	Turner 1987
P. Bodmer II	no. 44 (II, mid)	no. 7 (*c.*200)		no. 63 (III, early)
P. Bodmer IV	no. 51 (III–IV)		no. 5b (IV, first half)	
P. Bodmer XIV	no. 49 (II–III)	no. 9 (III, early)		

Tab. 4: Bodmer Papyri reproduced in facsimile collections of Greek manuscripts.

P. Bodmer	Century	Typology	Quires	Script (Hands)	Dimensions (W×H)	Size (mm)	Proportion
XXIV	III, first half	PapCod	1	[AM1] (A, B)	130×240	370	0,541
XLV + XLVI + XLVII + XXVII	III–IV	PapCod	+	Severe style (A); [BM] (B); Alexandrian Chancery Hand of Subazianus Aquila (C)	155×180	335	0,861
II + P. Köln V 214 + P. Chester Beatty ac. 2555	III, mid–IV, mid	PapCod	+	[AM1]	[200×210]	410	0,952
XIV–XV	III, late–IV, early	PapCod	1	Severe style	[130×260]	390	0,5
Schøyen Collection MS 193 + P. Chester Beatty 2026	IV	PapCod	+	[AM1]	155×147	302	1,054
III	IV	PapCod	+	BM (A, B)	165×232	397	0,711
V + X + XI + VII + XIII + XII + XX + IX + VIII	IV	PapCod	+	[BM] (A; C); [AM1] (E); [BM+AM] (D); Round semi-formal majuscule (B)	142×155	297	0,916

P. Bodmer	Century	Typology	Quires	Script (Hands)	Dimensions (W×H)	Size (mm)	Proportion
XXV + IV + XXVI + P. Köln VIII 331 + P. Duke inv. 775	IV, 2nd half	PapCod	1	Informal cursive majuscules (A, B, C)	130×280	410	0,464
XVIII	IV, 2nd half	PapCod	+	BM	140×145	285	0,965
P. Monts. Roca. inv. 128–178, 292, 338	IV, 2nd half	PapCod	1	Informal cursive majuscule (Greek); primitive minuscule bookhand (Latin)	114×123	237	0,926
VI	IV–V	ParchCod	+	BM+AM	120×145	265	0,827
XIX	IV–V	ParchCod	+	BM (A, B, C, D)	125×155	280	0,806
XXIII	IV–V	PapCod	+	BM	[135×210]	345	0,642
XXII + Mississippi Coptic Codex II	IV–V	ParchCod	+	BM	[120×140]	260	0,857
XXIX + XXX–XXXVIII	V, early	PapCod	1	[BM] (A, B, C, D); BM+AM (E, F)	[175×285]	460	0,614
XVI	V	ParchCod	+	AM1	135×160	295	0,843
XXI + P. Chester Beatty Ac. 1389	V	PapCod	+	Severe style > UPM / SPM (A); [BM] (B)	125×185	310	0,675
XL	VI	ParchCod	+	BM	150×190	340	0,789

Tab. 5: Bodmer papyri
PapCod = papyrus codex; ParchCod = parchment codex; C = Coptic; G = Greek; L = Latin; BM= Biblical majuscule; AM1 = unimodular Alexandrian majuscule; BM+AM = script mixing elements from Biblical and Alexandrian majuscules; UPM = upright pointed majuscule; SPM = sloping pointed majuscule; the script acronym within square brackets, e.g. [BM], is used when a hand belongs to the general graphical style of the script, but not to the so-called 'canon'; the symbol '+' is used in the 'Quires' column when a codex is formed of more than one quire.

3 Greek Biblical Majuscule

3.1 Overview of studies 1967–2000

Guglielmo Cavallo's monograph, *Le Ricerche sulla maiuscola biblica*, was for a long time a unique contribution to the field of Greek palaeography in terms of its methodology of applied palaeographical analysis.[125] Nevertheless, various critical observations from a number of scholars were made when the book was first published. In their reviews of the book, José O'Callaghan, Peter J. Parsons, Jean Irigoin and Nigel G. Wilson[126] raised a series of problematical issues which can be summarised as follows:[127]

1. the author's method of palaeographical comparison is carried out too strictly, resulting in over-precise datings (Parsons, Irigoin);
2. the choice of excluding bibliological and codicological data from consideration alongside palaeographical data (Irigoin, Wilson);
3. the exclusion of certain manuscripts from the analysis (O'Callaghan, Irigoin);
4. a historically linear and evolutionist vision of the history of writing (Parson, Irigoin, Wilson);
5. a somewhat unconvincing distinction between different areas of production (Irigoin, Wilson).

Specific answers to some of these criticisms can be found in Cavallo's book itself. Before the *Ricerche* the method of palaeographical comparison in the field of Greek palaeography was dominated—in Pratesi's words[128]—by 'the suggestion of greater or lesser formal beauty' in the scripts: in analysing these, attention was largely dedicated to the overall appearance of the writing and the shapes of individual letters. Cavallo's method, on the other hand, takes into consideration the paradigmatic level of all the elements of palaeographical valuation (structure, module, *ductus*, writing angle) with the aim of reducing (perhaps excessively) arbitrariness in dating.

125 The first assessment of the degree of innovation which Cavallo's book brought to the field of Greek palaeography can be found in Alessandro Pratesi's *Preface* (Cavallo 1967a, VII–IX).

126 O'Callaghan 1968; Parsons 1970; Irigoin 1970; Wilson 1971a.

127 For other more descriptive and less critical reviews, see Calderini 1966; Bianchi Bandinelli / Carandini 1968; Petrucci 1968; Duplacy 1968; Martini 1968b; Samuel 1968; Hombert 1970, 189–191.

128 Pratesi 1967, IX.

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As for the exclusion of 'all' the then recorded examples of Biblical majuscule from his study, Cavallo makes it clear that this is a deliberate choice; in fact, Pratesi in his preface to the book points out that 'the quantity of material taken into consideration by the author is vast, even though—by necessity—it does not include every known example of Biblical majuscule'.[129] The surprise of certain scholars at omissions in Cavallo's treatment therefore seems somewhat exaggerated, especially in view of the fact that several manuscripts indicated as missing in Cavallo's work are not written in Biblical majuscule.[130]

There are three criticisms, however, which deserve closer consideration: Cavallo's linear and evolutionary vision of the history of writing, his decision to exclude bibliological data from his analysis and the criteria he uses to distinguish geographical areas of production.

The evolutionary and linear model applied to the history of Biblical majuscule—as with the other 'canonical' or 'normative' majuscules—was certainly not innovatory when Cavallo used it in 1967. Previous palaeographers had used this model in order to reconstruct—on the basis of the handful of key manuscripts which can be dated more or less with certitude—a diachronic sequence of characteristic elements, according to the principle of cyclical development. Such a model, taken from the analysis of the development of living organisms, generally implies three distinct phases of growth: the first is the formation of the 'canon', the second is one of structural consolidation and maturity, and the third represents decline. In this fashion the 'life-cycle' of a style of writing has been divided, based on the principle of recurring life-cycles, into infancy, adulthood and old age, which tend to coincide with the birth, maturity and decadence of the cultures which gave rise to these styles of writing and used them. The limitations of this model are evident: on the one hand, there is the evolutionary idea that writing styles always tend towards a greater complexity and artificiality from simple origins and on the other the presupposition that there is a single, linear and one-directional chronological development, an assumption which tends to overlook the synchronically occurring deployments of the script in different geographical contexts.[131]

Bibliological data were specifically excluded by Cavallo from his 1967 study on the grounds of his decision to devote his investigations purely to the graphic dimension of writing, but another monograph by the present author does cover

129 Pratesi 1967, IX.

130 O'Callaghan 1968; Irigoin 1970. For these manuscripts, see Orsini 2005a, 169 n. 15.

131 See for example the criticisms of Cavallo 1967a on this very question made by Parsons 1970, 379–380; Irigoin 1970, 73–74; Wilson 1971a, 239.

this aspect of Biblical majuscule,[132] looking at all the data—also for the manuscripts studied by Cavallo—relating to material composition, actual or reconstructed measurements, the size of the written space, the arrangement of the columns and the number of lines in each column or page.

As for distinguishing between geographical areas of production, the analysis of this question is more complex and we will return to it in a later section of this chapter.[133]

Moving on from the reviews of Cavallo's 1967 study to an overview of the research on Biblical majuscule which has been done since it was published (much of it carried out by Cavallo himself), two main elements emerge:

1. the criticism raised by Parsons, Irigoin and Wilson of the historical overview of the Biblical majuscule canon in the *Ricerche* has not in fact been taken up in any substantial way by subsequent scholars in the field;
2. in most of the work which has been published since 1967 the issue that has attracted most attention from scholars relates to the localisation of manuscripts and in particular the two spheres of production, Western and Eastern.[134]

3.2 The chronological distribution of the manuscripts

The corpus of manuscripts written in Biblical majuscule which the present writer compiled in 2005[135] enables us to make a series of assessments of the chronological distribution of this material. The peak of production is recorded in the fifth century (26.30%) (Table 6). From the second to the fifth centuries there is a steady increase in production (7.78% in the second century, 11.85% in the third, 14.81% in the fourth); after the fifth century there is a decline until the style disappears definitively over the course of the ninth–tenth centuries: from 14.81% in the sixth century there is a precipitous fall to 2.96% in the seventh. The eighth century sees a small increase (3.70%) over the preceding century, but the following centuries see an inexorable decline set in: 1.48% in the period between the eighth and the ninth centuries, 1.48% again in the ninth, 0.74% as the ninth moves into the tenth century.

132 Orsini 2005a, 215–259.

133 See paragraph 3.5.2 in this chapter.

134 On Western Europe, see Cavallo 1977a; Cavallo 1977b; Cavallo 1988; for the Eastern area (comprising the Syriac-Antiochian, Palestinian, Sinaitic, Constantinopolitan, Mesopotamian areas), see Crisci 1996, 173–182; Crisci 2000.

135 Orsini 2005a, 215–259.

On the basis of these figures the production of manuscripts in Biblical majuscule can be subdivided into at least three periods: 1. the period from the formation of the graphic structure of the style (second-third centuries) up until the fourth century; 2. the period from the fifth to the sixth century; 3. the period from the seventh to the tenth century. The first two periods see a steady increase in production; over the course of the second and third periods there is a sudden fall in production, amounting to approximately 44% (or 119 manuscripts). A possible explanation for this decline in production can perhaps be sought both in the general crisis which overtook the Empire between the second half of the sixth century and over the course of the seventh, with the consequent decline of the most important cultural centres of production, including therefore of manuscripts,[136] as well as the increasing competition faced by Biblical majuscule from other canonical majuscules, above all Alexandrian majuscule and sloping pointed majuscule .[137]

The fact that the highest concentration of manuscripts in Biblical majuscule—about 144 manuscripts, 53.33% of the total corpus—is found in the second half of the fourth century, throughout the fifth century and the first half of the sixth perhaps sheds light on one aspect of the history of writing. If we take into account the fact that the first clear modifications to the rules of the Biblical majuscule canon are found from the end of the fourth century onwards,[138] then it is possible to conjecture that the style began to offer greater freedom of execution[139] to practitioners at the moment of its maximum adoption. In other words, reasons of what might be called 'graphic economy' led to the lack of adherence to certain rules in the canon. Both the widespread practice of a script together with an increase in the number of people capable of writing lead to a reduction of canonical 'unity': as a result a freer, less controlled interpretation of the rules begins to emerge. The theory normally advanced as an overall explanation for the production of Biblical majuscule from the end of the fourth century to the ninth–tenth centuries—that

136 For a general overview of the history of the period see Ostrogorsky 1993, 59–125. For the impact and consequences on contemporary book production, see Cavallo 1986, 164; Crisci 2000. For the historical and cultural aspects, see Mango 1991b, 157–158; Cavallo 1995a, 13.

137 Crisci 2000, 17: 'the canonical scripts which were most frequently used [in the sixth-seventh and eighth centuries] are Alexandrian majuscule and sloping pointed majuscule, whereas examples of Biblical majuscule are rare and of upright pointed majuscule even more so [...]. If anything one finds, among manuscripts with religious texts, a noticeable use of informal scripts, based on majuscule but varying considerably in structure, with abundant cursive strokes and other forms derived from minuscule script, various types of which were by now widely used in documentary production'.

138 Cavallo 1967a, 4–12.

139 Cavallo 1967a, 69–107.

the style no longer responded to the needs of the time and therefore lost its contextual relevance[140]—is useful for understanding the period from the seventh to the tenth centuries, but is less helpful for the earlier phase between the end of the fourth and the first half of the sixth century. Cavallo writes that 'when a canon of writing starts to show signs of effort in the execution, that is a sign that it no longer matches the overall graphic climate, its influence is felt less and for that very reason it falls into decline'.[141] This interpretation fits perfectly the situation of Biblical majuscule between the seventh century and the ninth–tenth centuries, but when we try to apply it, in the light of the data we have just described, to the situation between the end of the fourth and the first half of the sixth centuries, certain phenomena remain unexplained. The infringements of the canon, the higher proportion of manuscripts being written in Biblical majuscule, the first stylistic differentiations—all found in the period between the end of the fourth and the first half of the sixth century—do not so much indicate the 'decontextualisation' of Biblical majuscule as a canon as, rather, its 'contextualisation', that is to say, its transformation from a style inflexibly interpreted by a small number of scribes to one which is livelier since it is now open to individual ways of doing things and regional inflections, while still remaining clearly within an identifiable 'canon'.

Biblical majuscule was used for both scrolls and papyrus and parchment codices. Papyrus scrolls (Table 7) constitute 25.28% of production, papyrus codices (Table 8) 11.11%, and parchment codices (Table 9) 61.11%.[142]

Papyrus scrolls (Table 7) are found mostly in the second (29.41%) and third centuries (35.29%); in the fourth century there is an abrupt decline in numbers (8.82%). On the other hand, the fourth century sees a notable increase (33.33%) in the production of papyrus codices (Table 8). In this case manuscript production in Biblical majuscule reflects the growing prevalence, over the course of the second to fourth centuries, of the codex as opposed to the scroll; over this period the number of papyrus scrolls decreases and at the same time that of papyrus codices increases.

140 Cavallo 1977a, 97: 'Once the use of majuscule was limited or totally eliminated in the common writing practice, it could no longer renew itself but remained imprisoned within its canons'.

141 Cavallo 1967a, 69.

142 Five manuscripts (i.e. 1,85%: P. Bingen. 19 [LDAB 7999], P. Bour. 5 [LDAB 2188], P. Lit. Palau Rib. 20 [LDAB 5916], P. Oxy. IX 1179 [LDAB 265], P. Oxy. XI 1398 [LDAB 1963]) are written on papyrus, but whether they were originally intended as scrolls or codices remains undetermined; one manuscript (P. Genova 2 [LDAB 3272]) is formed of a single papyrus leaf; a single manuscript (Sin. MΓ 87 [LDAB 7334]) is a parchment scroll.

The production of parchment codices (Table 9) grows over the third and fourth centuries to reach a peak of 35.76% in the fifth century. After a phase when the various material types co-exist (in the third century there are twenty-four scrolls, four papyrus codices, one parchment codex; in the fourth century there are six scrolls, ten papyrus codices, and twenty-three parchment codices) in the fifth century parchment codices become the almost absolutely dominant form (one scroll, ten papyrus codices, fifty-nine parchment codices). After the fifth century, only parchment codices are known, with the highly sporadic exception of some papyrus codices (one in the sixth century, one in the sixth-seventh centuries).

As can be seen, the information from an analysis of the chronological distribution of the type of material support found in manuscripts written in Biblical majuscule does not add much which is new to our overall picture of the Greek world,[143] but it is still useful in helping us to measure with greater precision several phenomena which occur as part of the production of Biblical majuscule, such as, for example, the transition from the structural consolidation of the style (first half of fourth century) to the early stylistic deviations from the rules (between the end of the fourth century and the fifth century).

3.3 Material types of production

3.3.1 Papyrus scrolls

The papyrus scrolls for which it is possible to reconstruct with some degree of certainty the original dimensions (Table 10) are few in number and all of them contain literary texts (Demosthenes and Homer). For the other papyrus scrolls only fragments exist which do not allow us to formulate reliable conjectures of their original dimensions. In terms of length, their measurements vary from a

143 For an overview of the emergence and the development of the codex see Roberts / Skeat 1987, 35–83. For a revision of the datings proposed by them see Cavallo 1989, 171–173. See also Crisci 2003, 84–85, whose view–based on statistics of 1,550 Greek survivals from the third/fourth to the eighth century–is that the papyrus scroll gradually disappeared between the fourth and the sixth centuries, the papyrus as opposed to parchment codex was the dominant form until the end of the sixth century, while the parchment codex became dominant only from the beginning of the seventh century onwards.

maximum of [19/20.5] m—exceptionally long—to a minimum of [4] m;[144] their height varies from [26.6] cm to a minimum of [24] cm.[145]

3.3.2 Papyrus codices[146]

There is more data on the dimensions, actual or reconstructed, of papyrus and parchment codices and in consequence a more detailed analysis can be undertaken.[147]

For papyrus codices (Table 11), there is a noticeable preference for a small to average size (height + width):[148] 73.68% are in the range from 32 to 49 cm. A good number, 21%, also have a small size—i.e. below 32 cm. Very few have a size greater than 49 cm: just 5.26%. No papyrus codex has a size greater than 67 cm.[149]

The relationship between page width and height in papyrus codices (Table 12) confirms some general tendencies: the most frequently occurring ratios are found in the range between 0.551 and 0.650 (a total of eight manuscripts), while 16.68% have a ratio between 0.751 and 0.800. These figures indicate that papyrus codices in Biblical majuscule reflect the norms of production of Greek papyrus codices:[150] in the majority of cases, narrow proportions (below 0.650) for the pages are preferred. The explanation for this preference undoubtedly lies in the methods of production of these codices, beginning with the commercial papyrus scrolls with close-set *kolleseis*.[151]

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144 For the length of papyrus scrolls, see Johnson 2004, 143–152.

145 For the height of papyrus scrolls, see Johnson 2004, 141–143.

146 The analysis of the external aspects of the manuscripts (as codices, both on papyrus and on parchment) follows the methodology established in Bozzolo / Ornato 1980. See also the contributions on methodology collected in Ornato 1997 (Bozzolo / Ornato 1997a; Bozzolo / Ornato 1997b; Maniaci / Ornato 1997]) and the monograph volume Maniaci 2002.

147 In Tables 11–18, the dimensions used to calculate the size and the proportion of width to height of the page (W/H) and of the written space (w/h) always correspond to the original dimensions of the manuscript leaves, actual or reconstructed, and never from surviving fragments.

148 For the typology of different sizes, see Bozzolo / Ornato 1980, 217–220 (small size up to 32 cm; small-medium size 32–49 cm; large size over 49 cm); a slightly different typology is found in Maniaci 2002, 85 (small size up to 25 cm; medium size 25–50 cm; large size over 50 cm).

149 Maniaci 2002, 75–106.

150 Menci 1997, 685; Maniaci 2002, 132–133; both these contributions made use of data supplied by Turner 1977.

151 Turner 1977, 43–53; Menci 1997, 685–689; Maniaci 2002, 132–133.

The ratio w/h of the written space (Table 13) in papyrus codices appears to follow the same tendency in the ratio W/H of the page. The majority of manuscripts, about eleven, have a ratio lower than 0.800, of which six have a ratio lower than 0.650. Only a single manuscript has a ratio equal to 1. The written space in papyrus codices tends to be narrow, like the page.[152]

3.3.3 Parchment codices

Codicological data which is useful for an analysis of their material aspects can be found only in 135 parchment codices (Table 14). Small to average dimensions are most common (42.96%) but there is a sizeable number of small dimensions (28.15%) and average to large dimensions (27.41%). Only two manuscripts are large. A comparison of this data with that for papyrus codices shows that in both types small to average dimensions are most common. Yet there is one difference which is worth noting: among papyrus codices there are very few average to large size codices and none of large dimension; among parchment codices, on the other hand, the proportion of codices of average to large dimensions is quite high and there are also codices of large dimension, although only 1.48% of the total.[153]

When we analyse the chronological distribution for the size of parchment codices, it can be observed that small to average dimensions are most numerous in the fifth century (twenty-one manuscripts), like those with small dimensions (eighteen manuscripts). In contrast, average to large dimensions are more common in the sixth century (nineteen manuscripts) than in the preceding or following centuries. It would seem almost that small and small to average sizes, most commonly found in the fourth and fifth centuries, gradually make way in the sixth century for average to large dimensions.[154]

As far as the ratio W/H of the pages in parchment codices is concerned (Table 17), the ratios most commonly found range between 0.651 to 0.900 (comprising a total of 108 manuscripts). Within this wide spectrum, the most frequent ratios are in the ranges 0.751–0.800 (twenty-six manuscripts) and 0.801–0.850

152 See Menci 1997, 687; Maniaci 2002, 157–158.

153 For an analysis of the two main 'recipes' for page layout in Greek and Latin manuscripts (Paris. lat. 11884, ff. 2–4, end of ninth century; Monac. Clm 7775, fifteenth century), see Maniaci 1995; Maniaci 2002, 177–208; for another 'recipe' of *mise en page* in Byzantine manuscripts (Vat. gr. 604, ff. 183r–187r, second half of the fourteenth century), see also Bianconi 2011. For the size of antique codices on parchment, see Maniaci 2002, 75–106.

154 Maniaci 2002, 80–82.

(twenty-eight manuscripts).[155] From this it is possible to deduce that in parchment codices, unlike papyrus codices, the proportions of the page tend on the whole to be square. This is a notable distinction between the two types of production, recorded by other scholars,[156] and now newly confirmed by the data on manuscripts written in Biblical majuscule.

Manuscripts with these ratios are most frequently found in the fifth and sixth centuries. However, it should be noted that while in the fifth century the ratios 0.751–0.800 and 0.801–0.850 are found in almost equal numbers (nine manuscripts for the former and eleven for the latter ratio), the second ratio is dominant in the sixth century, with eleven manuscripts as opposed to three.

Again there is a tendency to square proportions in the w/h ratio of the written space (Table 18). The most common ratios are 0.801–0.850 (eleven manuscripts or 14.86%) and 0.901–0.950 (ten manuscripts or 13.51%). The W/H ratio of the page and the w/h ratio of the written space in parchment codices both show a tendency towards square proportions.[157]

In analysing the chronological distribution for the data on the w/h ratio of the written space, certain significant features stand out. Above all, the ratios 0.801–0.850 and 0.901–0.950 are most commonly found in the period from the fourth to the sixth centuries. From the seventh to the ninth centuries by contrast the ratio 0.601–0.750 is more commonly found: of the twelve manuscripts from this period, no fewer than ten have the ratio 0.601–0750. Thus there is a transition from a phase (fourth to sixth centuries) in which the w/h ratio of the written space tends largely toward the square to a period (seventh to ninth centuries) in which it tends towards the rectangular (with the shorter side at the base). The phenomenon can be explained by the fact that, in comparison with previous centuries, the page proportions were also reduced.

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155 Maniaci 2002, 131–134; in connection with Byzantine manuscript production as contrasting with Latin practice, Maniaci (Maniaci 1995, 31; Maniaci 2002, 195–196) notes a 'clear preference for volumes of large proportion, as already demonstrated by Eric G. Turner's investigations of late-antique manuscripts on parchment. It should be noted, however, that many of the volumes studied by Turner show a high proportion of about 0,800, occasionally rising to 1, whereas the proportion of most of the Greek codices produced between the ninth and the twelfth centuries correspond to the 'Pythagorean' proportion of about 0,750 (equal to the mathematical ratio ¾), with only a small number of volumes' exceeding 0.800'.

156 Menci 1997, 685; Maniaci 2002, 131–132. See also Cavallo 1997, 211, who only takes into consideration late-antique manuscripts containing secular literature ('the scarcity of late-antique Greek manuscripts of classical authors which survive in libraries and the absence, once again, of Christian texts should make us cautious in drawing conclusions, but, as in Latin production, it would seem that the square or almost square format was dominant').

157 Menci 1997, 687; Maniaci 2002, 157–158.

3.4 Page layout

In terms of the number of columns on a page, in papyrus codices (Table 15) a page layout consisting of a single column to a page is the dominant pattern (76.93% as opposed to 23.07% of manuscripts with two columns to a page). This is by no means an innovation in manuscripts written in Biblical majuscule:[158] the phenomenon could be caused by the fact that papyrus codices prefer narrow page proportions. In parchment codices (Table 16) the situation is different: apart from a minority of manuscripts which have four and three columns to a page (0.65% and 4.54% respectively) 46.75% have two columns and 48.05% one column, thus with a very narrow difference in the prevalence of the two types.

3.5 Textual categories

The texts transcribed in Biblical majuscule belong to various genres. Comparing religious and secular literature (Table 19), it will be seen that in overall terms religious literature has the edge with 54.44% of texts as opposed to 43.70% of secular texts. Looking at the type of material support, there is a prevalence of secular literary texts on papyrus scrolls, few on papyrus codices, and in large number on parchment codices; religious literature is not much found on scrolls, but there are notable quantities both on papyrus and parchment codices. The trends over time of the two genres move in opposite directions: secular literature is written in large quantity on scrolls only to found increasingly less frequently on codices, whereas religious literature is insignificant in terms of scrolls but is massively represented in codex production.[159]

In terms of the quantities of religious and secular literature on papyrus scrolls (Table 20) the disproportionate superiority of secular over religious texts is quite clear, 95.59% as opposed to 2.94% This ratio is almost completely reversed when we look at papyrus codices (Table 21): here religious literature is dominant, 80% as opposed to 20% for secular literature. This remains almost

158 Maniaci 2002, 292–295.

159 Crisci 2003, 86–89. This phenomenon can be explained by the noted predilection on the part of Christians for the codex over the roll: on this topic, see the different opinions of Roberts / Skeat 1987, 35–74 van Haelst 1989; Cavallo 1989; Crisci 2008.

unchanged when we consider parchment codices (Table 22): 71.51% of religious literature against 26.06% of secular literature.[160]

These figures give rise to some interesting indications. Secular literature, prevalent on papyrus scrolls, is written in Biblical majuscule in large quantities until the fourth–fifth centuries but subsequently becomes increasingly rare; religious literature is transmitted almost exclusively in the form of the codex (both papyrus and parchment) and is written in Biblical majuscule in increasing quantities from the third century onwards.[161] The interesting aspect which seems to emerge from this is that Biblical majuscule was not adopted from its beginnings for religious texts but on the contrary in its initial phase (from the end of the second century to the fourth century) was used almost exclusively for secular literary texts.

So far we have been looking at types of text from a general viewpoint. It will be helpful to exemplify in summary form—and in chronological sequence—the relationship between different types of book production and types of texts.

Looking at the types of text found on papyrus scrolls (Table 23), we find that epic is the most frequent literary genre (25%), followed by oratory at 17.65%, and history at 16.18%. All three belong to secular literary production; sacred literature is present with the *Old Testament*, at 2.94%.

Turning to types of text on papyrus codices the situation is different (Table 24). Here the *New Testament* and *Old Testament* prevail, at 40% and 23.33% respectively. The secular literary genre most found remains the epic at 6.67%, despite the abrupt decline when this figure is compared to the high proportion found on papyrus scrolls. New genres, compared to the literary genres found on papyrus scrolls, are above all patristic literature (13.33%), manuals (3.33%) and prosody (3.33%).

The categories of text found in parchment codices (Table 25) confirm the data we have just seen: the *New Testament* is the most commonly found text (29.1%) followed by the *Old Testament* at 24.85%. According to the data presented here, and considering papyrus and parchment codices together, there are sixty manuscripts in Biblical majuscule of *New Testament* texts as opposed

160 Crisci 2003, 87; Crisci 2000, 16–17: 'from a sample of *c.*300 items [...] manuscripts of the *Old Testament* account for almost 30%; more than half of these (*c.*63%) contain the *Psalms*. Manuscripts of the *New Testament* represent little more than 23% of the sample'.

161 Crisci 2003, 104–106; more generally, see Crisci 2000, 7: 'on the basis of surviving evidence, the number of secular authors read and transcribed between the sixth-seventh and eighth centuries was extremely small and decreased even further with the passing of time'.

to forty-eight of *Old Testament* texts.[162] Liturgy and patristic texts account for 5.45% and 4.85% of production respectively. In secular literature, oratory is the most prominent genre (7.88%), followed by epic poetry at 5.45% and history at 3.03%: in all three categories of book production these are the three most commonly found genres in secular literature. The data for the fourth century is particularly striking: oratory is the largest category with seven manuscripts as opposed to six of the *New Testament*: this is further proof of the fact that Biblical majuscule emerges as a style of writing used in secular texts and over the course of the following centuries becomes especially associated with sacred texts. In the fourth century this transformation is still only in progress, in so far as the presence of oratory, among the literary genres, prevails over that of sacred texts. After the fourth century, this no longer occurs.

3.5.1 New guide-manuscripts for use in dating

With the updated information on papyri and parchment manuscripts written in Biblical majuscule it has become possible to identify new manuscripts which can be used as guides for dating diachronically the development of the Biblical majuscule style of writing. In his *Ricerche* Cavallo used the following manuscripts as guides for dating: P. Oxy. IV 661 (end of second century; LDAB 474), P. Ryl. I 16 (*c.*220–225 CE; LDAB 2661); Vindob. Med. gr. 1 (*ante* 512/513 CE; LDAB 10000);[163] Vat. gr. 1666 (800 CE; LDAB 7153). To these manuscripts new ones can now be added.

A single sheet, Sin. gr. NE ΜΓ 12 (Fig. 34),[164] is dated 861/862 and contains the subscription to Sin. gr. 210, written in sloping pointed majuscule. This is possibly the latest example of Biblical majuscule we have, though it is important to bear in mind that in this case the style is used for a particular purpose since it has been employed to write the subscription rather than the entire manuscript. Therefore, while Sin. gr. NE ΜΓ 12 is certainly another example of a dated manuscript written in Biblical majuscule, the last manuscript entirely written in the style remains Vat. gr. 1666 from 800.

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162 This data seem to contradict the general trend that instead shows a higher number of *Old Testament* rather than *New Testament* manuscripts. From a sample of about 300 manuscripts, Crisci 2000, 16, provides the following data: 30% for the *Old Testament* and 23% for the *New Testament*.

163 See in the present volume p. 148 and Fig. 57–59.

164 Harlfinger / Reinsch / Sonderkamp 1983, 13–14 and title page; see also Nikolopoulos 1999, 144 and pl. 2.

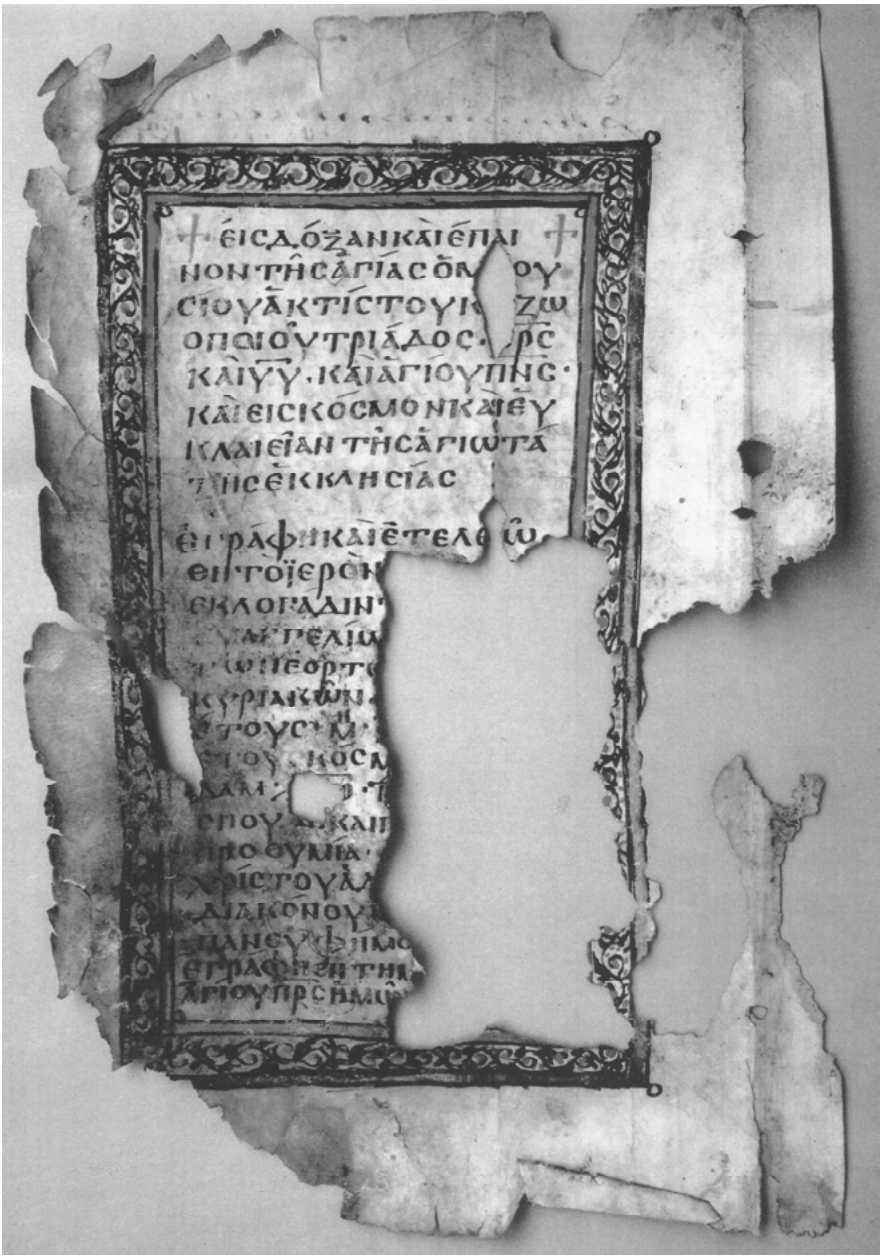

Fig. 34: Sin. gr. NE ΜΓ 12.

In four other cases, the dating of the manuscripts can be determined by other chronologically specific criteria, in addition to palaeographical comparison with other manuscripts in Biblical majuscule.[165]

The manuscript P. Berol. 13929 + P. Berol. 21105 (LDAB 367; Fig. 35), containing Aristophanes' *Equites*, has an extensive apparatus of marginal and interlinear notes written in a semi-cursive majuscule not later than the end of the fifth century. These notes of the scholiasts, contemporary with the text, provides more objective evidence for the dating of the manuscript based on a comparison with other dated manuscripts.

Fig. 35: P. Berol. 21105.

Another manuscript, P. Oxy. LXII 4327 (LDAB 734; Fig. 36), presents some interesting chronological clues. On the side of these two fragments from a papyrus scroll written across the fibres, there are traces of a document written in a cursive style datable to the third century. In this case, the scroll, containing the *De Chersoneso* by Demosthenes on the side written along the fibres, was re-used some decades later on the other side to write a document, which thus constitutes a *terminus ante quem*.

165 For detailed descriptions of the four manuscripts cited below, see Orsini 2005a, 51–52, 99–100, 101–102, 111–112.

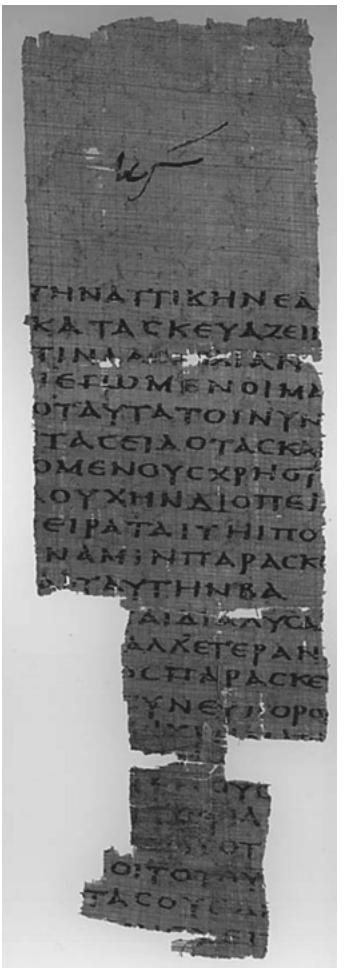

Fig. 36: P. Oxy. LXII 4327.

In the fragment P. Oxy. XLIX 3509 (LDAB 3823; Fig. 37), from a papyrus scroll, the side written across the fibres and the top and bottom margins of the side along the fibres have been used to record private accounts in a cursive script datable to the first half of the fourth century. So here is another example of a scroll, in this case with Plato's *Republic* on the side along the fibres, which was reused some decades afterwards in order to write a document using both the side across the fibres and the remaining spaces on the side along the fibres. Again the cursive script of the document constitutes a *terminus ante quem*.

Fig. 37 and 38: P. Oxy. XLIX 3509 and P. Oxy. XLV 3227.

The same phenomenon is found in P. Oxy. XLV 3227 (LDAB 1233; Fig. 38), two fragments from a papyrus scroll. On the side written across the fibres there are the remnants of two columns from a document written in a cursive style of the third century. The scroll, which contains Hesiod's *Works and Days* on the side written along the fibres, was subsequently reused in order to write a document on the other side. This document thus constitutes a *terminus ante quem*.

While these four manuscripts do not contain a specific dating *ad annum*, they nevertheless can be used as guide-manuscripts for dating, alongside those used by Cavallo in his 1967 study.

3.5.2 Geographical areas of production

For the aspect of the geographical areas of production the argument is more detailed and complex.

Summarising the various proposals for geographical distinctions which have been advanced from 1967 (Cavallo) to 1996 (Crisci) (Table 26), there are eleven distinct areas: 1. Constantinople and surroundings; 2. Syriac-Antiochene; 3. Mesopotamian; 4. Syrian-Mesopotamian; 5. Palestinian; 6. Syrian-Palestinian; 7. Egyptian-Nitrian; 8. Egyptian-Alexandrian; 9. Egyptian;[166] 10. Sinaitic; 11. Western. The main question which needs to be asked is whether all these areas correspond to more or less separate and unitary cultural ambiences in which manuscripts written in Biblical majuscule were produced.

3.5.2.1 Constantinople

The manuscripts Vindob. Med. gr. 1—the celebrated Dioscorides in Vienna—and Lond. Add. MS 5111 (LDAB 7151) were attributed by Cavallo to Constantinople and its ambience.[167] The writing shows ornamental thickening at the ends of thin strokes; oblique strokes descending from left to right are thickest (except for the oblique strokes of *nu* which are thread-like); the oblique strokes descending from right to left are very thin (except in *zeta*, where the stroke is heavy). The middle oblique strokes of *mu* are fused in a curve which dips below the base line; *phi* has a rounded bowl. Of all Cavallo's proposals for the place of production, this one, the keystone of which is the Vienna Dioscorides,[168] appears to be the most convincing. The following manuscripts have also subsequently been attributed to Constantinople: Marc. gr. I 8, Neapol. ex Vindob. gr. 2[169] and Guelferb. 75a Helmst (LDAB 2569).[170]

166 For the discussion of the graphic typologies found in manuscripts from Egypt, see the paragraph 4.4 of the *Coptic Biblical Majuscule* chapter in the present volume.

167 Cavallo 1967a, 93–98.

168 Cavallo 1967a, 94–97.

169 Cavallo 1977a, 106.

170 Crisci 1996, 78, 102, 107.

3.5.2.2 Syriac-Antiochene

The manuscripts Vindob. Theol. gr. 31 (LDAB 3078), Berat. 1 (LDAB 2901), Codex N of the Gospels (LDAB 2905),[171] Paris. Suppl. gr. 1286 (LDAB 2902), *Codex Purpureus Rossanensis* (LDAB 2990) have been attributed by Cavallo to the Syriac-Antiochene area on the basis of the sites where they were discovered, the textual characters of the *New Testament* texts they contain and the stylistic and iconographic features of the miniatures.[172] The scripts show a solemn monumentality in their forms and a mannered deployment of chiaroscuro. Ornamental thickenings are present in *delta* and *pi* but absent in *epsilon* and *sigma*; the stems descending below the base line end with an oblique leftward stroke. Seen from a codicological viewpoint—not taken into consideration by Cavallo but the importance of which was brought out by Crisci—these manuscripts are strikingly similar (Table 27). They all have a medium-large size, with a L/H ratio of the page between 0.810 and 0.870, a page layout which varies from one column to two columns per page but with a somewhat reduced number of lines, on average 16–17, because of the enlarged module used for the letters. Cavallo attributed the following manuscripts to this group: Vat. gr. 2061A (section B: ff. 234, 236, 238–239, 241, 243, 245 [LDAB 10657]; section C: ff. 254–292 [LDAB 10658]) and Vat. gr. 2302 (LDAB 10642);[173] but these attributions are not without difficulties. Section B of Vat. gr. 2061 and Vat. gr. 2302, in neither of which does the script have the artifice and monumentality of the others in this group, show palaeographical features which would suggest they do not belong to a Syriac-Antiochene ambience but rather, as a cautious hypothesis, already proposed by Crisci, to a Syrian-Palestinian one. Only Vat. gr. 2061A (section C) could be said to belong to the Syriac-Antiochene group of manuscripts, in that the writing shows the same monumentality, with a module for the letters measuring 1 cm in height. Furthermore, seen codicologically, it has a medium-large size (52 cm) with two columns to the page, each consisting of 16–17 lines.

Among new manuscripts Louvain fr. H. Omont 8 + Athon Lavra 61 (LDAB 2922) shows palaeographical features which are common to the majority of manuscripts in this group, though codicologically it seems to stand apart: it has a small to medium size (38.5 cm), two columns per page with about 12 lines. Similarly, Cantabr. Add. 1875 (LDAB 2960) shares palaeographical characteristics of the group, but has a small size of 22 cm and (2) columns per page each of about 23–24 lines.

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171 Athen. fr. 21 + Lerma, A. Spinola, s.n. + Lond. Cotton Tit. C. XV + New York, Pierp. Morg. Libr., 874 + Patm. 67 + Vat. gr. 2305 + Petropol. gr. 537 + Vindob. Theol. gr. 31 (ff. 25–26) + Tessalonic. Ms. 1.

172 Cavallo 1967a, 98–105.

173 Cavallo 1977b, 121–124.

3.5.2.3 Syrian-Mesopotamian

The manuscript Vat. Syr. 162 + Lond. Add. 14665 (Z^1 [LDAB 3474], Z^2 [LDAB 3342], Z^4 [LDAB 3340], Z^6 [LDAB 3341]) originates from the Syrian-Mesopotamian area. The *scriptio superior* contains a Syriac chronicle composed in the ninth–tenth centuries at Zuqnin in Mesopotamia by Joshua the Stylite. It is a plausible suggestion that the *scriptio inferior* in Biblical majuscule of sections Z^1–Z^6 was created in the region between Syria and Mesopotamia. Z^1 is written in a monumental Biblical majuscule which is certainly connected to the manuscripts of Syriac-Antiochene origin, as are sections Z^2 and Z^4. The Biblical majuscule found in Z^6 is less elaborated and shows some hesitancy and variability in aspects of the written trace.

3.5.2.4 Palestinian

A Palestinian origin has been proposed for the manuscripts Lond. Royal MS. 1 D V–VIII (LDAB 3481), Vat. gr. 1288 (LDAB 780), Vat. gr. 2061A (section A: ff. 198, 199, 221–222, 229–230, 293–303, 305–308 [LDAB 2906]), Vat. gr. 2306 (LDAB 3980). A firm point of reference is provided by Vat. gr. 1288, the celebrated Vatican Dion Cassius, for which a Palestinian origin (possibly Caesarea) has been proposed on linguistic and cultural historical grounds.[174] The other manuscripts in the group have some palaeographical affinities with the Dion Cassius, beginning with Lond. Royal MS. 1 D V–VIII (Codex Alexandrinus). But it should be said that, while the palaeographical features do not seem especially distinctive, codicologically speaking they are very closely related: all have medium-large and large dimensions, a three-column page layout, except for the Codex Alexandrinus which has two columns, and between forty-one and fifty-two lines per page. The identification of Caesarea in Palestine as the place of origin for the Codex Sinaiticus (second half of fourth century [LDAB 3478]) and the Codex Vaticanus (second half of fourth century [LDAB 3479]) was made on purely textual grounds by Skeat (1999), who believed the two famous codices to be 'the work of the same scriptorium, and [...] written at approximately the same time'[175] and suggested they were two copies from the fifty copies of the Bible requested in 330 CE from Eusebius of Caesarea by the Emperor Constantine.[176] Skeat's contribution takes no account of the regional characteristics of the script nor does he take much into consideration the palaeographical aspect of the ques-

174 Mazzucchi 1979, 103–108.

175 Skeat 1999, 603.

176 Skeat 1999, 604–617. An Alexandrian provenance is confirmed, on a purely textual basis, by Pierre-Maurice Bogaert and Stephen Pisano in *Vaticanus* 1999, 26, 40.

tion. The fact remains that in the middle of the fourth century there are no palaeographical features which are marked enough to suggest that there was a Palestinian ambience distinct in itself, though it is true that from the codicological point of view the two manuscripts seem to match later codices produced in this area: the Codex Sinaiticus is large in size and has four columns per page of forty-eight lines each; the Codex Vaticanus is medium-large in size and has three columns per page of forty/forty-four lines each.

3.5.2.5 Mesopotamian

For the manuscripts Wash. Freer 1 (LDAB 3288), Lond. Add. MS 17211 (ff. 1–48 [LDAB 2892]), P. Berol. 6794 (LDAB 2205), Lond. Add. MS 17210 (LDAB 2231), Paris. gr. 9 (LDAB 2930), Wash. Freer 4 (LDAB 3044) Cavallo has proposed an Egyptian-Nitrian origin on the following grounds: the sites where they were discovered, the textual types of sacred texts they contain, and their graphic-stylistic features.[177] The writing is unelaborated and uses simple and even somewhat crude forms. Some of these forms and pen-strokes are strikingly unusual: the first two strokes of *alpha* are written without lifting the pen while the third is slightly curved and protruding above; in *delta* and *lambda* the righthand line is slightly curved and protruding above; in *mu* the beginning of the oblique righthand stroke does not coincide with the top of the vertical line but slightly below; *upsilon* has the stroke descending from right to left slightly curved and gradually thinning. To these manuscripts Cavallo and Maehler have added another two: P. Berol. 16353 (LDAB 3225) and P. Berol. 13929 + P. Berol. 21105 (LDAB 367).[178]

Crisci has modified the overall picture.[179] He attributes Lond. Add. MS 17211 (ff. 1–48; the Codex Nitriensis) to Mesopotamia; Cavallo had assigned it to the Egyptian-Nitrian ambience as it came from Deir es-Suriani in the Nitrian desert but there is every probability that it was actually produced in Mesopotamia, since a note in Syriac tells us that the *scriptio superior* was carried out in the monastery of Mar Simeon in Kartamin.[180]

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177 Cavallo 1967a, 87–93. Some of these manuscripts had already been grouped together using palaeographical criteria by Sanders 1909, 130–132.

178 Cavallo / Maehler 1987, pl. 24 b–c.

179 Crisci 1996, 150–153.

180 A note on f. 53r states that the Syriac text was copied by Simeon, an anchorite at the convent of Mar Simeon in Kartamin, for Daniel, *periodeutes* of the district of Amid; in addition, two more notes in Syriac (f. 49r) record that the manuscript had been in the possession of Daniel, bishop of Edessa: Daniel had acquired it while *periodeutes* of Amid and bequeathed it to the

If we accept Crisci's hypothesis, then other manuscripts in this group are also likely to have been written in Mesopotamia: Lond. Add. MS 17210 (which, as far as the *scriptio superior* in Syriac is concerned forms one manuscript with Add. MS 17211),[181] P. Berol. 6794, Wash. Freer 1. Two manuscripts, Paris. gr. 9 and Wash. Freer 4 were included by Cavallo in the Egyptian-Nitrian group, but graphically they are not entirely similar to the preceding manuscripts, as Crisci observed: it is enough to look at the *upsilon* with the thread-like oblique stroke descending from right to left and a pronounced thickening at the end of the stroke, which is quite different from the *upsilon* found in the other manuscripts of the group, in which the same oblique stroke gradually thins. Among the new manuscripts P. Paris inv. E 6678 + P. Raineri II, pp. 78–79 (LDAB 4005) displays palaeographical features which are similar to P. Berol. 6794; for this reason it is possible to attribute a Mesopotamian provenance to it, rather than an Egyptian-Nitrian one. If Crisci's hypothesis is correct, Cavallo's 'Egyptian-Nitrian' ambience may in fact hardly exist as an autonomous class; it would be more correct to speak of a Mesopotamian ambience. As far as the codicological aspects of this group are concerned (Table 28), while there are striking variations, the medium-large size is most common. Page layout consists prevalently of a single column per page; Wash. Freer 1 is the exception, with two columns.

3.5.2.6 Egyptian

Cavallo assigns two manuscripts, without going into detail, to Egypt: Vat. gr. 2306 and Vat. gr. 2591 (ff. 25r–32v, 35r–38v).[182] Yet palaeographically Vat. gr. 2306 seems akin to Vat. gr. 1288, which has been attributed to a Palestinian ambience. Vat. gr. 2591 can be compared to manuscript PSI XVI 1612 (LDAB 7154), a parchment codex from Antinoopolis. For the manuscript P. Bodm. XXXVIII (LDAB 1106), Carlini has proposed an Egyptian provenance,[183] though the comparisons made by Cavallo with the Codex Sinaiticus and P. Beatty IV (LDAB 3160) do not resolve the question. The Egyptian ambience, as recon-

convent of Mar Silas of Sarug in Mesopotamia; see Wright 1871, 550, identifying Daniel with a bishop of Edessa between 768 and 825, and assuming that the codex had been probably brought to the convent of St Mary Deipara in the Nitrian Desert of Egypt by Moses of Nisibis in 932 CE, together with 250 other manuscripts; see also van Haelst 1976, 400. It is worth pointing out that the *scriptio inferior* on ff. 1r–48v of the manuscripts is in Biblical majuscule, whereas on ff. 49r–53v sloping pointed majuscule is used (LDAB 7468).

181 Wright 1871, 548–550.

182 Cavallo 1977b, 121–124.

183 Carlini 1987, 29.

structed by Cavallo, does not appear to have much importance as a centre of production.[184]

Cavallo identifies two smaller localities which form part of the larger Egyptian area: Egyptian-Nitrian (on which see the preceding section 3.5.2.5) and Egyptian-Alexandrian.

3.5.2.7 Egyptian-Alexandrian

Cavallo's attribution to an Egyptian-Alexandrian ambience of the manuscripts P. Ant. I 19 (LDAB 796), P. Ant. II 58 (LDAB 5827), P. Ant. II 65 (LDAB 5994), P. Oxy. VI 848 (LDAB 2799), P. Oxy. XIII 1595 (LDAB 3313), Lond. Cotton Otho B.VI (LDAB 3242), which come from Antinoopolis and Oxyrhynchus, is based on decorative and textual elements.[185] The writing is not excessively heavy; the oblique strokes descending from left to right are the thickest, except for *nu*, the oblique strokes descending from right to left are of medium thickness, rarely though still occasionally found after the end of the fifth century. Ornamental thickenings at the end of thin strokes are either absent or barely indicated. These palaeographical characteristics are not especially distinctive compared with other manuscripts in Biblical majuscule from the fifth to sixth centuries; as a result this localisation is the weakest of the geographical categories proposed by Cavallo in his 1967 study. Among the subsequently discovered material written in Biblical majuscule only two manuscripts, P. Hal. 55A (LDAB 5969) and P. Col. XI 293 (LDAB 2953) can be plausibly given an Egyptian-Alexandrian provenance.

3.5.2.8 Manuscripts from Sinai

A number of manuscripts coming from the monastery of St Catherine on Mount Sinai remain to be considered: Sin. NE ΜΓ 107 (LDAB 7329), Sin. NE ΜΓ 14, Sin. NE ΜΓ 70 (LDAB 7332), Sin. NE ΜΓ 87 (LDAB 7334), Sin. NE ΜΓ 76 (LDAB 10315), Sin. Politis 1b, Sin. NE ΜΓ 71 (LDAB 7331), Sin gr. 221 (ff. 147v–148r), Sin. gr. NE ΜΓ 12, Petropol. gr. 12 + Petropol. gr. 278 + Petropol. Dmitriesvskij s.n. + Sin. Harris Nr. 11 (LDAB 2989), Petropol. gr. 258A + Sin. Harris Nr. 14 (LDAB 3065). In palaeographical terms, these manuscripts do not constitute a distinct group. As Crisci has observed, they reflect on the contrary the stylistic variations in the canon found in the East. The manuscripts Sin. NE ΜΓ 107 and Sin. NE ΜΓ 71 can

184 For the production of manuscripts in Biblical Majuscule in Egypt, see paragraph 4.4 of the *Coptic Biblical Majuscule* chapter in this volume.

185 Cavallo 1967a, 85–87.

be compared with Guelferb. 75a Helmst (Constantinople), Sin. NE MΓ 70 with Vindob. Theol. gr. 31 (Syriac-Antiochene), the manuscripts Sin. NE MΓ 87, Sin. Politis 1b, Petropol. gr. 12 + Petropol. gr. 278 + Petropol. Dmitriesvskij s.n. + Sin. Harris Nr. 11 and Petropol. gr. 258A + Sin. Harris Nr. 14 can be compared with Vindob. Med. gr. 1 (Constantinople), the manuscripts Sin. NE MΓ 76 and Sin. gr. 221 (ff. 147v–148r) can be compared with Lond. Add. MS 17211 (Mesopotamia), the Sin. gr. NE MΓ 12 can be compared with Paris. gr. 9 and Wash. Freer 4 (attributed by Cavallo to the Egyptian-Nitrian ambience but not matching that group).

3.5.2.9 Western area

A large number of manuscripts have been attributed to the Western area of production: Laur. Conv. Soppr. 152 (ff. 106, 107, 110, 111, 113–122, 127–136, 153–176t Crypt. B.α.LVI n. I (a) (LDAB 10478), Crypt. Z.α.XXIV (b) (LDAB 3006), Mutin. gr. 73, Mon. lat. 29022e (LDAB 8952), Neapol. ex Vindob. gr. 1 (LDAB 802), Laud. gr. 35 (LDAB 2881), Paris. Coislin 186 (LDAB 3403), Paris. gr. 107 + 107A + 107B (LDAB 3003), Paris. Suppl. gr. 1155 (f. 19; LDAB 10067), Paris. Suppl. gr. 905 (ff. 54v, 51v, 112v), Patm. 171, Vallic. C 34/IV (LDAB 10478), Vat. Barb. gr. 472 (LDAB 10654), Vat. Barb. gr. 336 (LDAB 10359), Vat. gr. 1666 (LDAB 7153), Vat. gr. 1456 (ff. 179/184; LDAB 10656), Vindob. lat. 954 (ff. 7–9, 14–15; LDAB 8952), Vindob. Suppl. gr. 121 (LDAB 10660), Weissemb. gr. 64 (part I: ff. 194–201, 299, 302–304, 311, LDAB 2932; part II: ff. 90–97, 154–161, 178–185, 226–233, 242–244, 257–259, 272, 278–279, 298, 300–301, LDAB 2904). In this area of production distinctive palaeographical features were employed. The writing is fluent and frequently rather careless; decorative flourishes are not much accentuated at the end of thin strokes. The main characteristic is the influence of Latin uncial script in the formation of certain letters: the influence of the uncial script employed in Rome on Biblical majuscule can mainly be seen in the flattening of the curves of letters consisting of rounded forms (*epsilon*, *theta*, *omicron*, *sigma*, *omega*). Other characteristics are the horizontal stroke of *delta* generally extended to the right; the horizontal stroke of *pi* tends not to be extended beyond the vertical strokes of the letter; *upsilon* has a very short vertical stroke which either descends below the base-line very slightly or not at all; the vertical stroke of *rho* extends a long way below the base-line, so much so it touches the letters in the line beneath.

Turning to the codicological aspects of the group (Table 29), in terms of size, there is a notable variation. Three manuscripts are small, twelve small-medium, four medium-large. Eight manuscripts have a ratio between 0.651 and 0.700, four between 0.701 and 0.750, four between 0.751 and 0.800, two between 0.801

and 0.850, and one between 0.901 and 0.950. Nine manuscripts have a page layout consisting of one column per page, and nine have two columns. A single manuscript shows a variation of one, two and three columns. All the manuscripts have between 21 to 32 lines, apart from Patm. 171 which has 46.

This codicological data reveals the pronounced variations in the manuscripts produced in the West, in contrast to the uniformity of the palaeographical elements.

3.5.2.10 Conclusions on geographical areas of production

From the preceding analysis of the geographical areas of production of manuscripts written in Biblical majuscule an overall picture emerges which is somewhat unclear and shifting. Identifying the places of origin of such manuscripts and grouping them according to their palaeographical characteristics is an exercise which requires a great deal of caution, since the elements used for this are neither determining nor conclusive. Often scholars has resorted to criteria—such as the locality where the manuscript was found, the decoration or the textual tradition—which do not provide incontrovertible evidence for establishing the place of origin for a given manuscript.

For these reasons, the geographical areas proposed below must be considered as an attempt rather than a definitive listing.

The areas which seem to present largely homogeneous palaeographical elements, which are in most cases neither exclusive to nor definitive of a specific area, appear to be the following:

1. *Constantinople*: Lond. Add. MS 5111 (beginning of sixth century), Vindob. Med. gr. 1 (beginning of sixth century), Guelferb. 75a Helmst (second half of seventh century), Neapol. ex Vindob. gr. 2 (ninth to tenth century), Marc. gr. I 8 (ninth to tenth century).

2. *Syria-Antioch*: Berat. 1 (first half of sixth century), Vindob. Theol. gr. 31 (first half of sixth century), Cantabr. Add. 1875 (second half of sixth century), Lovanio fr. H. Omont 8 + Athos, Lavra Δ 61 (second half of sixth century), Codex N of the Gospels (second half of sixth century), Paris. Suppl. gr. 1286 (second half of sixth century), *Codex Purpureus Rossanensis* (second half of sixth century), Vat. gr. 2061A (section C) (end of sixth century).

3. *Mesopotamia*: P. Berol. 16353 (beginning of fifth century), P. Berol. 13929 + P. Berol. 21105 (end of fifth century), Lond. Add. MS 17211 (ff. 1–48; end of fifth century), Wash. Freer 1 (end of fifth century), P. Berol. 6794 (fifth to sixth century), Lond. Add. MS 17210 (fifth to sixth century), P. Paris inv. E 6678 + P. Raineri II, pp. 78–79 (fifth to sixth century), Wash. Freer 4 (sixth century), Paris. gr. 9 (first half of sixth century).

4. *Syria-Mesopotamia*: Vat. Syr. 162 + Lond. Add. 14665 (Z^1: first half of sixth century; Z^2: second half of sixth century; Z^4: first half of sixth century; Z^6: second half of sixth century).

5. *Palestine*: Vat. gr. 2061A (section A) (middle of fifth century), Vat. gr. 1288 (second half of fifth century), Lond. Royal MS 1 D V–VIII (second half of fifth century), Vat. gr. 2306 (beginning of sixth century).

6. *Syria-Palestine*: Vat. gr. 2302 (first half of sixth century), Vat. gr. 2061A (section B) (middle of sixth century).

7. *Western area*: Mon. lat. 29022e (middle of fifth century), Paris. gr. 107 + 107A + 107B (middle of fifth century), Weissemb. 64 (fifth to sixth century), Vindob. lat. 954 (beginning of sixth century), Laud. gr. 35 (end of sixth century), Neapol. ex Vindob. gr. 1 (seventh century), Paris. Coislin. 186 (seventh century), Paris. Suppl. gr. 1155 (f. 19) (eighth century), Paris. Suppl. gr. 905 (eighth century), Vat. Barb. gr. 472 (eighth century), Vat. Barb. gr. 336 (eighth century), Vindob. Suppl. gr. 121 (eighth century), Crypt. B.α.LVI n. I (a) (end of eighth century), Crypt. Z.α.XXIV (b) (end of eighth century), Patm. 171 (end of eighth century), Vallic. C 34/IV (end of eighth century), Vat. gr. 1666 (800 CE), Vat. gr. 1456 (eighth to ninth century), Laur. Conv. Soppr. 152 (end of ninth century), Mutin. gr. 73 (end of ninth century).

Before the fifth century there do not appear to have been particular graphic styles within Biblical majuscule. Only in the fifth century do various stylisations begin to emerge (which can be interpreted as regional differences), progressively reinforced over the course of the following centuries until the ninth and tenth centuries. The most documented area is Western Europe, both for the number of surviving manuscripts and in terms of chronological range (from the fifth to the close of the ninth century). The highest rate of production in Western area (ten manuscripts out of a total of twenty for the period) occurs during the eighth century.

3.6 Tables

Century	Century (unspecified)	First half	Mid	Second half	Total	%
2nd			1	20	21	7,78
2nd–3rd	12				12	4,44
3rd	4	17	4	7	32	11,85
3rd–4th	5				5	1,85
4th	7	4	4	25	40	14,81

Century	Century (unspecified)	First half	Mid	Second half	Total	%
4th–5th	7				7	2,59
5th	3	29	12	27	71	26,30
5th–6th	12				12	4,44
6th	3	26	2	10	41	15,18
6th–7th	2				2	0,74
7th	3	1		4	8	2,96
8th	5	1		4	10	3,70
8th–9th	4				4	1,48
9th				3	3	1,11
9th–10th	2				2	0,74
Tot.					270	

Tab. 6: The chronological distribution of the manuscripts in Biblical majuscule.[186]

Century	Century (unspecified)	First half	Mid	Second half	Total	%
2nd			1	19	20	29,41
2nd–3rd	12				12	17,65
3rd	3	14	3	4	24	35,29
3rd–4th	5				5	7,35
4th	2	1		3	6	8,82
5th		1			1	1,47
Tot.					68	

Tab. 7: Papyrus scrolls.

186 The total number of manuscripts in Biblical majuscule in the present Table is 270 and not 264 (as listed in Orsini 2005a, 215–259), because of the division of some composite manuscripts into their individual codicological units: Vat. gr. 2061A (Orsini 2005a, 152–154), Vat. Syr. 162 + Lond. Add. 14665 (Orsini 2005a, 158–162), Guelf. Weissemb. 64 (Orsini 2005a, 172 n. 30).

Century	Century (unspecified)	First half	Mid	Second half	Total	%
2nd				1	1	3,33
3rd		2	1	1	4	13,33
4th	1	2	1	6	10	33,33
4th–5th	2				2	6,67
5th	1	4	1	4	10	33,33
6th		2			2	6,67
6th–7th	1				1	3,33
Tot.					30	

Tab. 8: Papyrus codices.

Century	Century (unspecified)	First half	Mid	Second half	Total	%
3rd				1	1	0,61
4th	4	1	3	15	23	13,94
4th–5th	5				5	3,03
5th	2	23	11	23	59	35,76
5th–6th	12				12	7,27
6th	3	22	2	10	37	22,42
6th–7th	1				1	0,61
7th	3	1		4	8	4,85
8th	5	1		4	10	6,06
8th–9th	4				4	2,42
9th				3	3	1,82
9th–10th	2				2	1,21
Tot.					165	

Tab. 9: Parchment codices.

Manuscripts	Reconstructed Dimensions	Contents	Date
P. Vindob. G 29816a + P. Whithouse (LDAB 748)	[m 19/20,5× cm 24][187]	Demosthenes, *In Midiam* 33–43	2nd–3rd
P. Oxy. LVI 3850 (LDAB 664)	[m 12×cm 26,6][188]	Demosthenes, *In Midiam* 131–137	2nd
P. Oxy. LII 3663 (LDAB 2020)	[m 4×cm 25,7][189]	Homerus, *Iliad* 18.33–50, 55–58, 73, 98–123, 182–193, 206–227, 261–277, 293–308, 325–342, 355, 375–389, 392–408	2nd–3rd

Tab. 10: Typologies of papyrus scrolls.

Century	Small (up to 32 cm)	Medium-small (32,1–49 cm)	Medium-large (49,1–67 cm)
2nd	1		
3rd		3	
4th	1	5	1
4th–5th			
5th	1	4	
6th	1	1	
6th–7th		1	
Tot.	4	14	1
%	21,05	73,68	5,26

Tab. 11: Papyrus codices: Typologies of size in chronological order.

187 Reconstructed in Lenaerts 1967, 132: for a discussion, see Orsini 2005a, 130–131.

188 Johnson 2004, 225: estimated roll length [≥10,2 / ≥10,8] m.

189 Johnson 2004, 213: estimated roll height [25,6] cm; Johnson 2004, 218: estimated roll length [4,1] m.

Century	0,400–0,450	0,451–0,500	0,501–0,550	0,551–0,600	0,601–0,650	0,651–0,700	0,701–0,750	0,751–0,800	0,901–0,950
2nd								1	
3rd		1		1	1				
4th	1		2	1	1	1		1	
4th–5th									
5th				2	1				1
6th							1	1	
6th–7th				1					
Tot.	1	1	2	5	3	1	1	3	1
%	5,55	5,55	11,11	27,78	16,68	5,55	5,55	16,68	5,55

Tab. 12: Papyrus codices: Ratios W/H of page layouts in chronological order.

Century	0,400–0,450	0,451–0,500	0,501–0,550	0,601–0,650	0,701–0,750	0,751–0,800	0,901–0,950	1
2nd						1		
3rd			1					
4th	2		1	1	2	1		1
4th–5th								
5th		1					1	
6th						1		
6th–7th								
Tot.	2	1	2	1	2	3	1	1
%	15,38	7,69	15,38	7,69	15,38	23,08	7,69	7,69

Tab. 13: Papyrus codices: Ratios w/h of written spaces in chronological order.

Century	Small	Medium-Small	Medium-Large	Large
3rd				
4th	10	4	2	1
4th–5th	1	3	0	
5th	18	21	6	1
5th–6th	1	4	2	
6th	4	10	19	

Century	Small	Medium-Small	Medium-Large	Large
6th–7th	1			
7th		5	3	
8th	1	6	3	
8th–9th		3	1	
9th	1	1	1	
9th–10th	1	1		
Tot.	38	58	37	2
%	28,15	42,96	27,41	1,48

Tab. 14: Parchment codices: Typologies of size in chronological order.

Columns	2nd	3rd	4th	4th-5th	5th	6th	6th-7th	Tot.	%
1 col.		3	6	1	7	2	1	20	76,93
2 cols	1		2	1	2			6	23,07

Tab. 15: Number of columns per page in papyrus codices.

Columns	3rd	4th	4th–5th	5th	5th–6th	6th	6th–7th	7th	7th–8th	8th	8th–9th	9th	9th–10th	Tot.	%
1 col.		10	4	24	5	16	1	3		5	2	3	1	74	48,05
2 cols	1	8	1	25	6	20		4		4	2		1	72	46,75
3 cols		2		3		1		1						7	4,54
4 cols		1												1	0,65

Tab. 16: Number of columns per page in parchment codices.

Century	0,300–0,400	0,401–0,500	0,551–0,600	0,601–0,650	0,651–0,700	0,701–0,750	0,751–0,800	0,801–0,850	0,851–0,900	0,901–0,950	0,951–1	1,200–1,700
3rd												
4th						4	3	1	5	1	2	1
4th–5th								3		1		
5th	1	1	2	1	5	5	9	11	4	3	3	1
5th–6th					1	1	2	1	1		1	
6th				2	9	4	3	11	1	1	2	
6th–7th							1					
7th				1	2		4			1		
8th					3	4	2	1				
8th–9th					2	1	1					
9th				1	1							1
9th–10th							1		1			
Tot.	1	1	2	5	23	19	26	28	12	7	8	3
%	0,74	0,74	1,48	3,70	17,04	14,07	19,26	20,74	8,89	5,18	5,92	2,22

Tab. 17: Parchment codices: Ratios W/H of page layouts in chronological order.

Century	0,350–0,400	0,400–0,500	0,501–0,550	0,551–0,600	0,601–0,650	0,651–0,700	0,701–0,750	0,751–0,800	0,801–0,850	0,851–0,900	0,901–0,950	0,951–1	1,001–1,100	1,101–1,590
3rd														
4th								3	2		3	2	2	1
4th–5th								1	1	1	1			
5th		1		2	1	2	3		4	4	4	1	1	
5th–6th							1		1					
6th	1		1		1	2	2	2	3	2	2	2	1	1
6th–7th								1						
7th						1								1
8th					4	1								
8th–9th		1				1	1							
9th					1									
Tot.	1	2	1	2	7	7	7	7	11	7	10	5	4	3
%	1,35	2,70	1,35	2,70	9,46	9,46	9,46	9,46	14,86	9,46	13,51	6,76	5,40	4,05

Tab. 18: Parchment codices: Ratios w/h of written spaces in chronological order.

	Pap Cod	Parch-Cod	Parch-Cod (Pal)	Parch-Cod (Purp)	Single Pap leaf	Pap	PapScroll	Parch Scroll	Tot.	%
Secular literature	6	41	2			4	65		118	43,70
Religious literature	24	88	26	4	1	1	2	1	147	54,44
Unidentified texts		3	1				1		5	1,85
Tot.	30	132	29	4	1	5	68	1	270	

Tab. 19: Texts and Book Typologies.
PapCod = Papyrus Codex; ParchCod = Parchment Codex; Pal = Palimpsest; Purp = Purple Parchment; PapScroll = Papyrus Scroll; ParchScroll = Parchment Scroll

Century	Secular literature	Religious literature	Unidentified Texts	Tot.
2nd .	20			20
2nd–3rd	12			12
3rd	22	1	1	24
3rd–4th	5			5
4th	6			6
5th		1		1
Tot.	65	2	1	68
%	95,59	2,94	1,47	

Tab. 20: Text typologies—papyrus scrolls.

Century	Secular literature	Religious literature	Tot.
2nd		1	1
3rd	1	3	4
4th	3	7	10
4th–5th		2	2
5th	2	8	10

Century	Secular literature	Religious literature	Tot.
6th		2	2
6th–7th		1	1
Tot.	6	24	30
%	20	80	

Tab. 21: Text typologies—papyrus codices.

Century	Secular literature	Religious literature	Unidentified texts	Tot.
3rd		1		1
4th	13	10		23
4th–5th	4	1		5
5th	17	41	1	59
5th–6th	5	7		12
6th	3	33	1	37
6th–7th		1		1
7th	1	7		8
8th		10		10
8th–9th		3	1	4
9th		2	1	3
9th–10th		2		2
Tot.	43	118	4	165
%	26,06	71,51	2,42	

Tab. 22: Text typologies—parchment codices.

	2nd	2nd–3rd	3rd	3rd–4th	4th	5th	Tot.	%
Comedy		2	2				4	5,88
Philosophy			1	2			3	4,41
Mythology	1						1	1,47
Rhetoric	3	3	3	1	2		12	17,65
Bucolic Poetry	1						1	1,47
Epic Poetry	4	5	6		2		17	25
Iambic / Elegiac	2						2	2,94

	2nd	2nd–3rd	3rd	3rd–4th	4th	5th	Tot.	%
Poetry								
Lyric Poetry	3		2				5	7,35
Prose		1	2				3	4,41
Romances	1		1				2	2,941
History	3		5	1	2		11	16,18
Tragedy	1	1		1			3	4,41
Old Testament			1			1	2	2,94
Unidentified Texts	1		1				2	2,94

Tab. 23: Text typologies–papyrus scrolls.

	2nd	3rd	4th	4th–5th	5th	6th	6th–7th	Tot.	%
Manuals					1			1	3,33
Metric Poetry					1			1	3,33
Epic Poetry			2					2	6,67
History		1						1	3,33
Tragedy			1					1	3,33
Old Testament			2		4	1		7	23,33
New Testament	1	3	3	1	2	1	1	12	40
Patristic			2	1	1			4	13,33
Unidentified Texts					1			1	3,33

Tab. 24: Text typologies–papyrus codices.

	3rd	4th	4th–5th	5th	5th–6th	6th	6th–7th	7th	8th	8th–9th	9th	9th–10th	Tot.	%
Biography				1									1	0,61
Comedy		1	1	1									3	1,82
Philosophy				1		1							2	1,21
Grammar				1									1	0,61
Lexicography						1							1	0,61
Magic				1									1	0,61
Medicine				1		1		1					3	1,82
Rhetoric		7	1	5									13	7,88
Bucolic Poetry					1								1	0,61
Epic Poetry		2	2	3	2								9	5,45
Prose		1											1	0,61
History		1		2	2								5	3,03
Tragedy		1		1									2	1,21
Old Testament	1	2	1	19	3	13		1	1				41	24,85
OT+NT		2		1		1							4	2,42
New Testament		6		16	2	14	1	1	6	1		1	48	29,1
NT Apocryphal				1									1	0,61
NT Liturgy				1		2							3	1,81
Liturgical				2				3	1		2	1	9	5,45
Patristic						2		2	2	2			8	4,85
Unidentified Texts				2	2	2				1	1		8	4,85
Tot.	1	23	5	59	12	37	1	8	10	4	3	2	165	

Tab. 25: Text typologies–parchment codices.

Cavallo 1967a	Cavallo 1977a	Cavallo 1977b	Cavallo / Maehler 1987	Cavallo 1988	Crisci 1996
Constantinople (Vindob. Med. gr. 1; Lond. Add. MS 511)	Constantinople (Marc. gr. I.8; Neapol. ex Vindob. gr. 2; Vindob. Med. gr. 1)		Constantinople (Vindob. Med. gr. 1)		Constantinople (Vindob. Med. gr. 1; Guelferb. 75a Helmst)
Syriac-Antiochene Area (Vindob. Theol. gr. 31; Berat. 1; N of the Gospels; Paris. Suppl. gr. 1286; Codex *Purpureus Rossanensis*)		Syriac-Antiochene Area (Vat. gr. 2061A [B, C]; Vat. gr. 2302)	Syriac-Antiochene Area (Vindob. Theol. gr. 31; Codex *Purpureus Rossanensis*)		Syriac-Antiochene Area (Vindob. Theol. gr. 31; N of the Gospels; Berat. 1; Paris. Suppl. gr. 1286; Codex *Purpureus Rossanensis*; Vat. gr. 2061A [C])
					Mesopotamian Area (Lond. Add. MS 17211; PBerol. 6794; Lond. Add. MS 17210; P. Dura 2; P. Dura 7; P. Oxy. XXII 2334; Washin. Freer 1)
					Syriac-Mesopotamian Area (Vat. Syr. 162 + Lond. Add. 14665)
		Palestinian Area (Vat. gr. 2061A[A])	Palestinian Area (Lond. Royal MS. 1 D V-VIII; Vat. gr. 1288)		Palestinian Area (Vat. gr. 1288; Vat. gr. 2306)

Cavallo 1967a	Cavallo 1977a	Cavallo 1977b	Cavallo / Maehler 1987	Cavallo 1988	Crisci 1996
Egyptian-Nitrian Area (Wash. Freer 1; Lond. Add. MS 17211; P. Berol. 6794; Lond. Add. MS 17210; Paris. gr. 9; Wash. Freer 4)			Provincial Egyptian Area (P. Berol. 16353; P. Berol. 13929 + 21105; P. Berol. 6794)		Syriac-Palestinian Area (Vat. gr. 2061A [B]; Vat. gr. 2302)
Egyptian-Alexandrian Area (P. Ant. I 19; P. Ant. II 58; P. Ant. II 65; P. Oxy. VI 848; P. Oxy. XIII 1595; Lond. Cotton Otho B.VI)			Egyptian-Alexandrian Area (Lond. Cotton Otho B.VI)		
		Egyptian Area (Vat. gr. 2306; Vat. gr. 2591)			
					Sinaitic Area (Sin. МГ 76; Sin. Politis 1b; Sin. МГ 71; Petropol. gr. 12 + Petropol. gr. 278 + Petropol. Dmitrievskij s.n. + Sin. Harris Nr. 11, f. 2)

Cavallo 1967a	Cavallo 1977a	Cavallo 1977b	Cavallo / Maehler 1987	Cavallo 1988	Crisci 1996
[Western Area] (Paris. Coislin 186; Neapol. ex Vindob. gr. 1; Vat. gr. 1666)	Western Area (Paris. gr. 107 + 107A + 107B; Laud. gr. 35; Paris. Coislin. 186; Vat. Barb. gr. 336; Paris. Suppl. gr. 1155 (f. 19); Vat. gr. 1666; Mutin. gr. 73)	Western Area (Vindob. lat. 954; Mon. lat. 29022e; Weissemb. gr. 64; Paris. gr. 107 + 107 A + 107 B)	Western Area (Patm. 171; Vat. Barb. gr. 472; Vat. gr. 1666)	Western Area (Vat. gr. 1666; Patm. 171; Paris. Suppl. gr. 1155 (f. 19); Vat. Barb. gr. 472; Vindob. Suppl. gr. 121; Paris. Suppl. gr. 905; Vat. gr. 1456 (ff. 179/184); Laud. gr. 35; Paris. Coislin 186; Vat. Barb. gr. 336; Neapol. ex Vindob. gr. 1)	

Tab. 26: Geographical areas of production proposed for manuscripts in Biblical majuscule.

	Dimensions	Size (cm)	Ratio W/H	No. of Columns per page	No. Lines per page
N of the Gospels	28×33	61	0,848	2	16
Vindob. Theol. gr. 31	27×33,3	60,3	0,810	1	13/17
Berat. 1	27×31	58	0,870	2	17
Paris. Suppl. gr. 1286	25×30	55	0,833	1	15/16
Rossanensis	25×30	55	0,833	2	20

Tab. 27: Codicological features in manuscripts from the Syriac-Antiochene area.

	Dimensions	Size (cm)	Ratio W/H	No. Columns per page	No. Lines per page
Paris. gr. 9	27×33	60	0,818	1	40/46
Wash. Freer 1	25×30	55	0,833	2	31
Lond. Add. MS 17210	23,5x29,5	53	0,796	1	33
Lond. Add. MS 17211	23,5×29,5	53	0,796	1	25
P. Berol. 6794	[25,3×26]	51,3	0,973	1	33/34
Wash. Freer 4	[20×25]	45	0,800	1	30
P. Paris inv. E 6678 + P. Raineri II, pp. 78-79	[18,5×26,5]	45	0,698	1	[32/33]
P. Berol. 13929 + 21105	[17×20]	37	0,850	1	[30]
P. Berol. 16353	10,5×[18]	28,5	0,583	1	22

Tab. 28: Codicological features in manuscripts from Mesopotamian area.

	Dimensions	Size (cm)	Ratio W/H	No. Columns per page	No. Lines per page
Patm. 171	25,5×36,5	62	0,698	1	46
Vindob. Suppl. gr. 121	24,5×32,5	57	0,753	2	24
Neapol. ex. Vindob. gr. 1	26×28,7	54,7	0,905	2/3	21
Vat. gr. 1666	22×31	53	0,709	2	30/32
Laud. gr. 35	22×27	49	0,814	2	22/26
Vat. gr. 1456	19,2×29,1	48,3	0,659	2	26
Weissemb. gr. 64	21,5×26,5	48	0,811	2	24/28
Paris. Suppl. gr. 1155, f. 19	19,5×26,2	45,7	0,744	2	23
Paris. gr. 107 + 107A + 107B	19,5×24,5	44	0,795	1	21
Paris. Coislin 186	19×24	43	0,791	1	22/24
Vallic. C 34/IV	17,5×24,7	42,2	0,708	1	29/30
Vat. Barb. gr. 472	17,5×25	42,5	0,700	2	23/24
Crypt. B.α.LVI n.I (a)	[17/18×22,5/23,5]	41,5	0,765	2	[30]
Mut. gr. 73	15,9×24,7	40,6	0,643	1	21
Mon. lat. 29022e	16×23	39	0,695	2	31
Crypt. Z.α.XXIV (b)	16×22,2	38,2	0,720	1	24
Vat. Barb. gr. 336	13×18,9	31,9	0,687	1	21/23
Vindob. lat. 954	12,5×18,3	30,8	0,683	1	21/23
Laur. Conv. Soppr. 152	12,2×18	30,2	0,677	1	24/25
Paris. Suppl. gr. 905	-	-	-	-	-

Tab. 29: Codicological features in manuscripts from Western area.

4 Coptic Biblical Majuscule

This chapter presents the results of a palaeographical investigation into the use of Biblical majuscule in Coptic manuscript production. It is well-known that the different alphabets used to transcribe the various Coptic dialects and subdialects are largely derived from the Greek alphabet, with the addition of some supplementary letters taken from the demotic form, and also that many of the writing styles used by Copts throughout late Antiquity are taken directly from Greek models.[190] We therefore have a geographical area, Egypt, the writing culture of which is characterised by particular circumstances and in which the same writing styles were used to produce manuscripts in different languages.[191]

Among the various writing styles adopted in Coptic we have singled out Biblical majuscule, for the reason that this Greek bookhand is undoubtedly the one which has been most studied and for which there is an ample though not exhaustive range of surviving manuscript evidence.[192] This is certainly advantageous for comparative analysis, which is, as is well-known, most efficacious when the material to be compared is in a good state of completeness.[193]

The investigation to be carried out here—undertaken as an experiment in comparative palaeography and, as such, cognizant of the methodological complexities of this approach as well as of the problematic nature of some of the choices and solutions presented here—has various aims:

1. to ascertain whether in these two cultural spheres (Greek and Coptic) Biblical majuscule followed the same course of development;
2. to identify and analyse the characteristics of this Greek writing style in Coptic manuscripts;
3. to find out whether studying Coptic manuscripts can provide us with useful information for the history of Biblical majuscule in Greek manuscripts.

In order to carry out such an investigation, the only valid method, as has just been suggested, is the comparison of the writing styles found in Greek and Coptic manuscripts. At a theoretical level, in cases such as these, comparison must be applied both within individual examples of Greek or Coptic writing (putting,

190 For the Coptic alphabets and their relation with the Greek alphabet, see Kasser 1991a; Kasser 1991b; Kasser 1991e. For a palaeographical analysis of the relationship between Greek and Coptic writings, see Stegemann 1936, 5–25; Kasser 1991f.

191 Bagnall 1993, 230–260.

192 Cavallo 1967a; Orsini 2005a; see also the *Greek Biblical Majuscule* chapter in this volume.

193 Supino Martini 1995.

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as is customary and proper to the palaeographical method, manuscripts which are undated and unassigned to a place of production alongside those which are dated and located) as well as in the study of the relationships between the two writing cultures. Unfortunately, for Coptic there is no specifically palaeographical study of Biblical majuscule—an omission which also applies to the other majuscules used in Coptic—and thus there exists no survey of surviving manuscripts, putting our investigation at a notable disadvantage. Furthermore, it is also the case that in the corpus of manuscripts looked at here—or more generally among Coptic manuscripts produced before the ninth century—there are no manuscripts which are either dated or contain elements which can be used to date the manuscript to within a more or less specific period of time.[194]

Therefore, on account of these difficulties, a selection has been made (as homogeneous as possible) of Coptic manuscripts written in Biblical majuscule. The choice fell on the corpus of Coptic manuscripts written in Biblical majuscule present in Karlheinz Schüssler's repertory *Biblia Coptica*,[195] a catalogue of Coptic manuscripts of the *Old* and *New Testaments* in Sahidic dialect. Out of all the manuscripts catalogued by Schüssler up to 2006, a mere thirty-nine are written in Biblical majuscule, a very restricted number when compared to the more than 300 manuscripts recorded for Greek production but still sufficient for a comparative investigation. For the purposes of this investigation, Schüssler's catalogue presents us with both an advantage and a disadvantage. The advantage is that for each manuscript he indexes he also provides a small reproduction, which, while it does not allow in-depth palaeographical analysis, enables us to ascertain with our own eyes the type of writing style adopted. The disadvantage is that Schüssler limits himself to manuscripts in Sahidic dialect, the main Coptic dialect used for translating sacred texts and literary texts in general up to the ninth century,[196] but not the only one; thus Schüssler's work does not enable us to draw, for the purposes of our investigation, on the manuscripts in the other Coptic dialects (Akhmimic, Lycopolitan, Mesokemic, Fayyumic, Bohairic).[197] As

194 For Coptic manuscripts in Sahidic dialect that are dated or provide elements useful for their dating, see van Lantschoot 1929. None of these dated or datable manuscripts is written in Biblical majuscule.

195 *Biblia Coptica* 1.1 (1995); *Biblia Coptica* 1.2 (1996); *Biblia Coptica* 1.3 (1998); *Biblia Coptica* 1.4 (2000); *Biblia Coptica* 3.1 (2001); *Biblia Coptica* 3.2 (2003); *Biblia Coptica* 3.3 (2004); *Biblia Coptica* 3.4 (2006). For an update after 2006—when the investigation presented here was concluded–see the *Addendum* at the end of the chapter.

196 Shisha-Halevy 1991.

197 For an overview of the categorisation of the different Coptic dialects, see Kasser 1991d; on the Sahidic dialect in particular, see Plisch 1999; Layton 2000.

a result—it is best to make this clear at the outset—it has not been possible to explore whether variations in the style of writing correspond to differences in the dialect used for the text. The fundamental question is indeed whether particular styles of writing existed in the different areas covered by each Coptic dialect but this is not the place to pursue such a complex and problematic issue. However, and in connection with this, it should also be borne in mind that books and scribes moved around much more than scholars have at times been prepared to admit. We know that the various monastic communities in Egypt, in particular, took in individuals coming from different linguistic areas and therefore probably also versed in a variety of writing styles. It is thus extremely problematic, not to say impossible, to identify the cultural physiognomy of the different scribal centres, given that different approaches to book production coexisted in the many scribal *ateliers*, where scribes from many different places would congregate.

4.1 The history of Coptic writing

Before tackling our specific subject, we should, however briefly, look at the present state of research on the history of Coptic writing. Coptic studies as a whole have been characterised by a kind of theoretical dichotomy: on the one hand there are those scholars who have used and continue to apply the findings from studies of Greek palaeography to the study of Coptic manuscript production; on the other there are those specialists who have rejected and continue to reject this approach, to the point that most of them espouse a palaeographical scepticism which prevents them from even putting forward hypothetical datings for manuscripts. The outstanding example of the first tendency was undoubtedly Viktor Stegemann, who in his *Koptische Paläographie* proposed a *Stilgeschichte der koptischen Schrift* based substantially on Wilhelm Schubart's history of Greek writing;[198] as the protagonist of the second approach, we could point to Walter Ewing Crum, who, in his *Catalogue of the Coptic Manuscripts in the British Museum*,[199] on the subject of dating these by comparing them with other Greek and Coptic manuscripts, displayed great scepticism, inviting us not to rush to conclusions before a deeper and more detailed analysis of writing styles had been achieved: 'suspended judgement is indeed still imperative'.[200] There is

198 Stegemann 1936, 5–25; Schubart 1925.
199 Crum 1905, XVIII–XIX; also Crum 1909, XII.
200 Crum 1905, XVIII.

some justification for Crum's attitude when one considers the state of palaeographical research on Greek and Coptic papyri at the beginning of the twentieth century: the great papyrological discoveries and the vast extent of acquisitions largely took place between the 1870s and 1890s, in other words just before the publication of Crum's catalogue in 1905. A similar position to Crum's, though more considered in the context of the advances in palaeographical studies, was that of Paul Erik Kahle, who opined that 'texts which can be dated either on external evidence [...], or on the basis of Greek texts in the same manuscripts [...] reveal a rather different picture from that which we obtain from early Coptic manuscripts which have been dated purely on the basis of Coptic supported by Greek Palaeography'.[201]

Taking Kahle's remarks as his starting point, Guglielmo Cavallo has observed that 'the criterion of comparison with Greek scripts [...] is of proven value in the case of Greek-Coptic manuscripts but it needs to be modified when applied to Coptic production on its own. [...] In Coptic practice Greek writing styles were borrowed, and these borrowings were often in diachronic relation to the evolution of these styles in Greek usage, so that Coptic manuscripts can be later than Greek manuscripts which have the same graphic features'.[202] On the possibility of this 'third way' for Coptic palaeography Rodolphe Kasser has expressed his opinion in his article 'Palaeography' for the *Coptic Encyclopedia*: 'any attempt to date Coptic scripts by comparing them to Greek scripts raises quite a critical problem. This approach, which may have seemed at first glance the obvious one and which Stegemann raised to the rank of methodological principle, can hold its own when applied to bilingual (Greek and Coptic) manuscripts. But with manuscripts written only in Coptic, one should be very cautious when making such comparison. [...] Indeed, one finds that in Coptic practice Greek scripts appear as a borrowed element and are frequently related diachronically to the same scripts evolving in Greek usage, so a Coptic script that possesses the same graphic characteristics as a Greek one may nevertheless be of clearly later date'.[203]

Such is the current general theoretical and methodological framework for Coptic palaeographical studies. In terms of palaeographical practice, on other hand, it needs to be pointed out that no comprehensive monographic study exists of Coptic bookhands which sheds light on the specific characteristics and

201 Kahle 1954, 260–261.

202 Cavallo 1975, 52–53 [= Cavallo 2005, 200].

203 Kasser 1991f, 178–180.

the eventual convergences with and divergences from Greek scripts.[204] This lack of detailed study and knowledge has led to one or other of the above-mentioned approaches being adopted unquestioningly. There has been a frequent preference for the study of single manuscripts, providing detailed and careful descriptions of their material aspects but spending little attention on analysing the scripts and placing them historically within a wider stylistic and structural framework. Stephen Emmel has summarised accurately what Coptologists' main interests have been hitherto: the amassing of codicological and palaeographical data for a typological and comparative study of the relevant manuscripts; the reconstruction of specific corpora of fragments of disbound manuscripts; a focus on the early 'bibliological units' which the manuscripts formed; and the history of their modern collecting. It is clear then that the formal and structural study of individual scripts has not aroused sufficient interest among modern researchers in the field.[205]

Far from siding with either of the theoretical approaches outlined above, the present study aims to investigate the use of Biblical majuscule in the writing of Coptic manuscripts in an attempt to identify stylistic and structural similarities and differences, both as they evolved and as they persisted over the course of time, in the Coptic and Greek spheres of writing.[206]

4.2 Writing exercises

A good starting point for our investigation is the collection of Coptic writing exercises in Biblical majuscule edited by Monika R.M. Hasitzka in collaboration with Hermann Harrauer.[207] We know in general terms that the acquisition of literacy in the Coptic world demanded knowledge of Greek and that, for any Egyptian speaker, it meant being bilingual in Coptic and Greek. The 'educational stages', to use Raffaella Cribiore's expression, appear to be fairly similar in learning to write both Greek and Coptic, as Hasitzka's compilation shows: the

204 For an overview of the development of the codicological and palaeographical studies relating to Coptic writing, see Layton 1985; Emmel 1993; Emmel 1999; Boud'hors 2006. Of particular relevance is Boud'hors 1997, described by Stephen Emmel as 'one of the few strictly paleographical studies'. For an interesting study on the relationship between Greek and Coptic writing in documents of the fourth century, see Gardner / Choat 2004.

205 Emmel 1993; Emmel 1999.

206 I prefer to avoid overloading my text with the discussion of already known topics and issues, therefore for a general description of the Biblical Majuscule and its aspects, see Cavallo 1967a, 4–12.

207 Hasitzka / Harrauer 1990.

surviving manuscript evidence of writing exercises in Coptic schools (alphabets, syllabaries, lists of words and names, etc.) seem to correspond to exercises carried out in Greek schools. Yet there were also significant differences between the two educational systems, above all relating to the type of texts used in schools and the level of grammatical knowledge.[208] However, the existence of school exercises in which both Greek and Coptic are used suggests that both languages and both scripts were taught and learnt in the same schools. It is probable therefore that the teaching of Greek and Coptic alphabets was carried out in parallel and at the same place.[209]

Among the material gathered by Hasitzka, only four pieces are written in Biblical majuscule or in majuscules which have been strongly influenced by it.

The *ostracon* O. Berlin. P. 12509 (LDAB 108822),[210] a fragment of white limestone, shows the opening formula of an epistle written in Biblical majuscule (Fig. 39). This shows all the characteristics of what Cavallo has called the period of 'decline in the canon': an irregular writing angle, the parsimonious use of ornamental thickenings to the ends of thin strokes, the artifice of alternating thin and thick strokes. An interesting feature—though in this example it is only sporadic—is the extension below the base line of the oblique stroke from left to right of *alpha*. Hasitzka's dating of the fragment to the eighth or ninth century is too late in my view; I would propose instead a date not later than the first decades of the sixth century.

An attempt at a decently executed Biblical majuscule can be seen in P. Vindob. K 9216 V (LDAB 108828),[211] the fragment of a parchment leaf containing a religious text. This is again an example of Biblical majuscule with the typical signs of decline: once more we can note the oblique stroke from left to right of *alpha* which occasionally extends slightly below the base lines; the same stroke

208 Cribiore 1999. According to Cribiore's reconstruction, students of the Coptic language often included epistolary *formulae*—introductory ones in particular—in their exercises, whereas students of the Greek language repeatedly copied the same letters of the alphabet. Moreover, the Coptic education system also differed from the Greek in the teaching of grammar. In the Greek-speaking world, the students carried out grammar exercises at an intermediate stage of their learning, when they had already acquired good writing skills. By contrast, grammar does not appear to have been part of the standard school *curriculum* in the Coptic world, in so far as the students did not attain to a level which required a good knowledge of the Coptic language. See also Cribiore 2007.

209 Bagnall 1993, 241–260; for a perspective differing from Bagnall's, see Wipszycka 1984 [= Wipszycka 1996, 107–126].

210 Hasitzka / Harrauer 1990, 95–96, no. 145, pl. 61.

211 Hasitzka / Harrauer 1990, 120–122, no. 186, pl. 66.

in *mu* varies from minimal to average thickness; vertical strokes which extend below the base line on occasion end with an oblique flick to the left. This fragment can be dated to the mid-to-late sixth century, (though the beginning of the seventh century should not be excluded) rather than the ninth to tenth century proposed by Hasitzka.

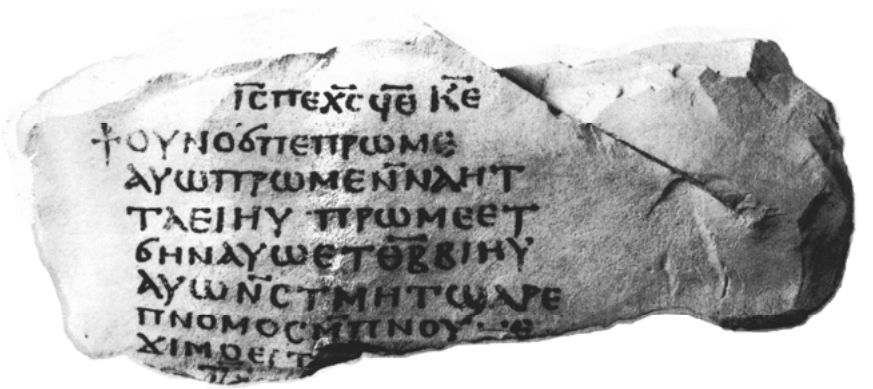

Fig. 39: O. Berlin P. 12509.

Another rather crudely done exercise can be seen in the *ostracon* O. Vindob. K 593 (LDAB 108852),[212] a fragment of a red clay tablet containing a text largely consisting of words and names derived from Latin. The script used is Biblical majuscule with evident irregularities both in the module and in the writing angle. The descending oblique stroke from left to right in *alpha* is slightly extended below the base line; the two oblique strokes of *mu* are of minimal thickness. This piece of writing can be assigned to the seventh rather than the eighth century which Hasitzka suggests.

212 Hasitzka / Harrauer 1990, 223–224, no. 283, pl. 101.

Equally crude is the Biblical majuscule found on *ostracon* O. Vindob. K 187 (LDAB 108853),[213] a fragment of a red clay tablet containing a writing exercise. Once again all the features of the style's decadence are present: in addition, the descending oblique stroke from left to right in *alpha* is slightly extended below the base line and the two oblique strokes of *mu* are of minimal thickness. This piece of writing can also be assigned to the seventh rather than the eighth century which Hasitzka suggests.

To these four pieces can be added the two writing trials or exercises included by Schüssler in his repertoire.[214] Even if these two pieces were not actually used in schools, they show stages in learning how to write in Biblical majuscule. In **sa 60** (LDAB 108548) the writing angle is irregular, so much so that strokes in the same direction show variations in thickness; there are ornamental thickenings at the ends of thin strokes; the descending oblique stroke from left to right in *alpha* is extended below the base line; the oblique stroke descending from left to right in *mu* is of average thickness, while it varies from minimal to average thickness in *nu*; vertical strokes which extend below the base line on occasion end with an oblique flick to the left. These characteristics would suggest a date around the middle of the sixth century rather than the fourth to fifth century proposed by Rodolphe Kasser and also by Schüssler. The same dating can be suggested for **sa 117ex** (LDAB 108243), a writing exercise in a script based on Biblical majuscule though not adhering to the 'canon' in the strict sense. The writing angle is irregular; the oblique stroke descending from left to right in *nu* is of minimal thickness, while that of *mu* is of average thickness; ornamental flourishes are largely absent, while only at the ends of the horizontal stroke of *tau* are there slight thickenings.

Though this material is inadequate for a more wide-ranging and detailed analysis, it shows how at the level of teaching or of school-use in general, Coptic Biblical majuscule is characterised by certain features we will look at more closely below; for the moment it is enough to point out the artifice of the chiaroscuro, which starkly contrasts the alternating thick and thin strokes (especially in the letter *mu*, which shows, even late on, unlike Greek, both the oblique strokes of minimal thickness) and the descending oblique stroke from left to right in *alpha* extending below the base line.

213 Hasitzka / Harrauer 1990, 226–227, no. 287, pl. 104.

214 For convenience, the manuscripts are identified here with the signatures assigned to them in Schüssler's *Biblia Coptica*, which are also used for the respective reproductions at the end of each fascicule.

4.3 The phases of Coptic Biblical majuscule

We now turn to the heart of our analysis with the description of the examples of Biblical majuscule found in the Coptic manuscripts which comprise our sample. Since this is the first time the descriptive methods of formal palaeography have been applied to Coptic writing, a detailed analysis of the script in each individual manuscript will be provided, albeit at the cost of some repetition.

4.3.1 First phase (fourth century)

Two manuscripts display the features of the phase in which the Biblical majuscule canon was being developed, i.e. a regular writing angle (albeit occasionally with some hesitancy), the absence (or at least restrained employment) of terminal thickenings. In **sa 120** (LDAB 107788; Fig. 40)[215] only the vertical stroke of *tau* shows at the lefthand extremity a small square-shaped thickening. Both the upper and lower curves of *epsilon* are noticeably flattened, taking on a lengthened appearance which suggests a rectangular rather than square module. As for *mu*, on occasion the oblique strokes are of the same average thickness and the first vertical stroke displays a small horizontal serif on the upper end. *Rho* and *upsilon* are only slightly extended below the base line; the vertical strokes of *pi* are slightly arched; the loop of *rho* is small and *phi* has a flattened bowl. These characteristic features would suggest a date around the middle of the fourth century.

215 This fragment—Leuven, Centrale Bibliotheek van de Katholieke Universiteit, Copt. Lov. 9—was destroyed in 1940. See Lefort 1938, 11–17, pl. II; Lefort 1940, 59–65, pl. V.

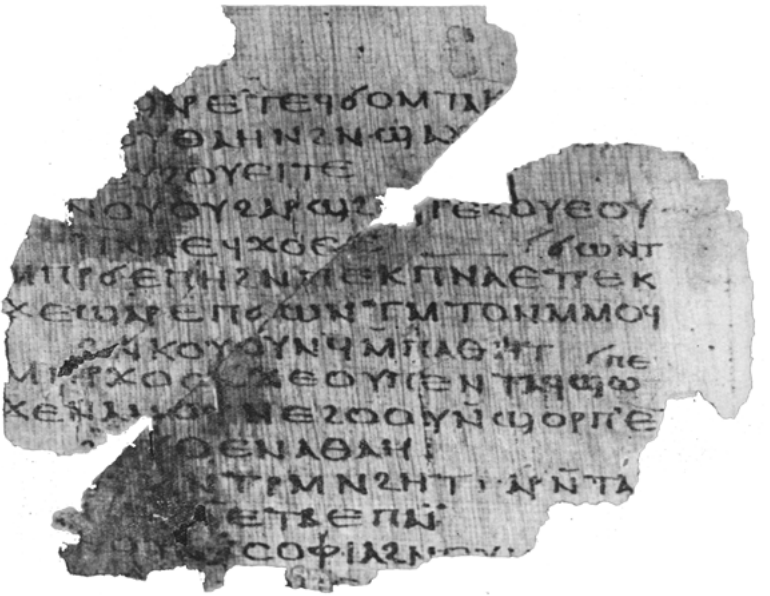

Fig. 40: *Biblia Coptica* 1.4 (2000), sa 120.

In **sa 14** (LDAB 108536) by contrast the Biblical majuscule displays an uncertain alignment on the base line and modular fluctuations in the letters even within the same line. The oblique descending stroke from left to right in *alpha*, *delta*, *kappa*, *lambda*, *mu* and *janja* are of medium thickness, whereas in *nu* it varies from medium thickness to thin. This same stroke in *alpha*, *kappa* and *lambda* is slightly extended below the base line and at times in *alpha* and *lambda* is slightly arched. Small ornamental swellings can be seen at the ends of the upper oblique stroke of *kappa*, at times at the ends of the horizontal stroke of *tau* and the curves and the horizontal stroke of *epsilon*. *Alpha* is sometimes written in three strokes and at others in two (with a more or less angular loop). These characteristics would indicate a dating to the second half of the fourth century.

4.3.2 Second phase (end of fourth to beginning of fifth century)

Other manuscripts would appear to reflect a more advanced stage in the development of Biblical majuscule. The writing angle becomes more irregular, so that the oblique strokes from left to right vary between maximum and minimum thickness (see especially *alpha*, *delta*, *lambda*, *mu*, *nu*) and small ornamental tips start to develop at the ends of horizontal strokes. Six manuscripts belong to this phase: **sa 35** (LDAB 107864),[216] **sa 48** (LDAB 108542), **sa 49** (LDAB 108176; Fig. 41–42),[217] **sa 501** (LDAB 107759), **sa 503** (LDAB 108570),[218] **sa 563** (LDAB 107946).[219]

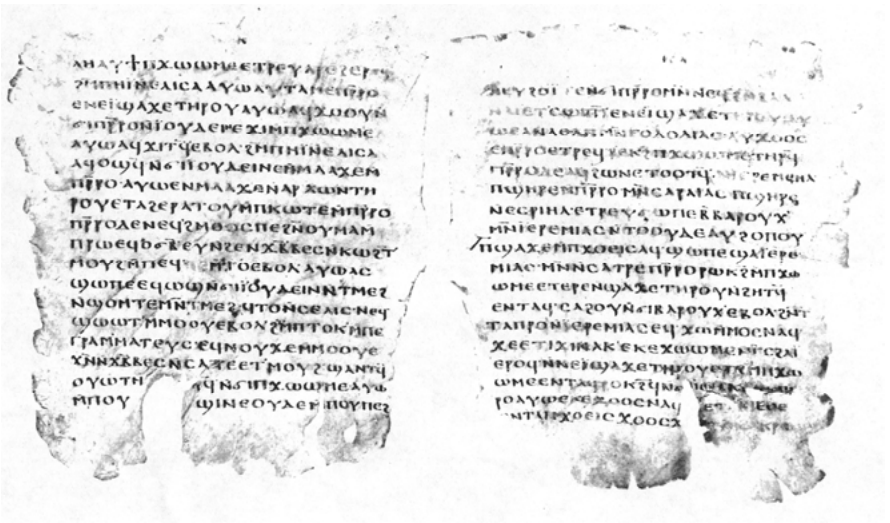

Fig. 41: *Biblia Coptica* 1.3 (1998), sa 49.

216 Stegemann 1936, pl. 2.
217 Willis 1961, pl. VI.
218 Layton 1987, pl. 16.1.
219 Horner 1911, pl. I.

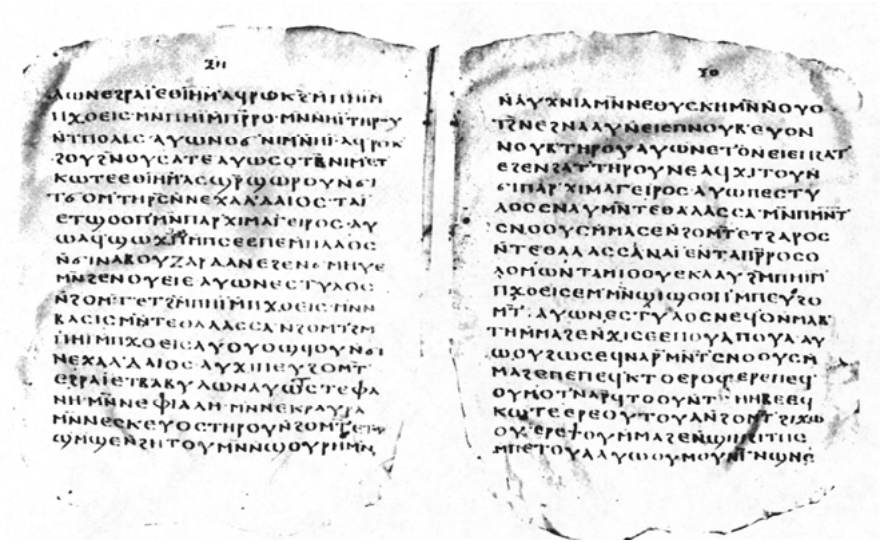

Fig. 42: *Biblia Coptica* 1.3 (1998), sa 49.

In **sa 35** the thickness of the oblique strokes descending from left to right varies from minimal (in *nu*) to medium thickness (for example in *alpha* and *mu*) and there are small thickenings at the end of the thin strokes in *epsilon*, *sigma*, *tau* and *upsilon*. In addition, the vertical strokes that descend below the base line end with an oblique stroke to the left. The first two strokes of *alpha* are written in a single movement and the middle stroke of *nu* is slightly arched. In **sa 48** the slope of the writing is slightly to the right; in *alpha*, *delta* and *lambda* the oblique stroke descending from left to right has a small right-facing serif at the upper end; in *nu* the oblique stroke (of minimal thickness) is slightly curved. The form in *beta* is lengthened so that it breaks the bilinear space both above and below; *rho* and *upsilon* are slightly extended below the base line; the right oblique stroke in *mu* is not joined on to the upper end of the second vertical stroke but slightly below it. In **sa 49** the oblique stroke descending from left to right in *alpha* extends below the base line; the oblique strokes of *mu* meet well above the base line; the oblique stroke of *nu* varies from medium to minimal thickness; there are light ornamental serifs at the ends of horizontal strokes. The manuscript **sa 501**[220] is written in two hands both of which display the gen-

220 Besides the two principal hands, Rodolphe Kasser (in P. Bodmer XIX [1962], 19) also identified a third hand, which only appears to have transcribed missing parts of the text on the

eral characteristics listed above: the first scribe wrote *St Matthew's Gospel* (pp. 77–166 [the codex is missing the initial leaves] while the other scribe wrote *St Paul's Epistle to the Romans* (pp. <167–172>).[221] In hand A *nu* has an oblique stroke of minimum thickness; the ornamental thickenings—not always present—are light and small; *rho* is slightly extended below the base line; in *mu* the oblique strokes (the one on the left is of maximum thickness) tend to join beneath the base line; *fai* does not extend below the base line; the vertical strokes that extend below the base line have an oblique left-facing stroke. The oblique stroke descending from left to right in *alpha*, *kappa* and *lambda* extends below the base line. Hand B has a notable *beta*, with two rounded and detached bowls. The *rho* has a very small loop and a vertical stroke which tends not to extend below the base line; the oblique strokes of *mu* meet on the base line. In **sa 503** the loop of *alpha* is written in a single stroke; the oblique descending stroke from left to right in *mu* and *nu* is of medium thickness; *rho*, *upsilon* and *fai* extend slightly below the base line. In **sa 563** the oblique stroke of *nu* is of medium thickness and is slightly curved; the oblique descending stroke from left to right in *mu* is of medium thickness; there are very few ornamental tips, being limited to small strokes at the ends of the horizontal strokes of *delta* and *tau*; the middle stroke of *epsilon* swells very slightly. This group of manuscripts can be dated to between the end of the fourth and the beginning of the fifth century.

Slightly later than this, very probably at the beginning of the fifth century, we can place **sa 15** (LDAB 107763),[222] written by two scribes both using Biblical majuscule. Hand A wrote ff. 1r–57v (*Deuteronomy*, *Jonah*) and Hand B ff. 58r–108v (*Acts of the Apostles*; extracts from the *Apocalypse of Elijah*). On ff. 108v–109v the scribe's damaged subscription can be found, in Coptic but written in Greek cursive. The dating of the manuscript has always been based on this cursive script (used as a *terminus ante quem*) which in Frederic G. Kenyon's view can be attributed to the middle of the fourth century.[223] However, after a close examination of the writing of the subscription, it is my belief that comparisons can be made with documents dating from the first half of the fourth century to the second half of the fifth century. Comparisons can be made, for example,

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reinforcing parchment guards of pages 111, 112 and 129, and a fourth hand, which occasionally retraced some damaged letters in the text of Matthew. On the manuscript, see in this volume pp. 36–37.

221 In the second portion of the codex, the pagination actually starts again from 1 to 6.

222 Budge 1912, pls 1–9; Cramer 1964, pl. 33; Layton 1987, 3–5, no. 1; Habbelynck 1921; Rahlfs / Fraenkel 2004, 217–219 (Sigel 925).

223 Budge 1912, lvi–lvii, lxiii, publishing F. Kenyon's conclusions; see also Schmidt 1925, with plate.

with the writing found in PSI X 1125 (official correspondence of the procurator Annius Diogenes with the military commander of Arsinoite: TM 17552), dated 13 April 302,[224] with the Coptic letter P. Kell. Copt. 36 (fourth century; TM 85887), and with the letter subscribed by Aurelius Abraham written in Banos in P. Oxy. VIII 1130 (contract for a loan of money; 484 CE; TM 21748).[225] In Hand A in **sa 15** the strokes of *nu* are thin; the oblique stroke descending from left to right in *alpha* and *lambda* is slightly curved and at times slightly extended below the base line; *kappa* is striking: the direction of the upper oblique stroke is almost horizontal and the line is slightly curved, while the lower oblique stroke starts from the base of this stroke rather than the vertical stroke. *Mu* is also notable: the first oblique stroke is extended slightly below the base line, beyond the point of contact with the second oblique stroke. The beginning of the text of *Jonah* on f. 53v is written by Hand A not in Biblical majuscule but in a mixture of Biblical and Alexandrian majuscule. Hand B shares the same general characteristics of Hand A but also displays some idiosyncratic features: the oblique stroke of *nu* is curved and it gradually thins from top to bottom; rectangular ornamental serifs stand out at the ends of the horizontal stroke of *tau*, the one on the left turned downwards, the one on the right upwards.[226]

A further group of manuscripts share features which would suggest a dating towards the end of the fifth century: **sa 57** (LDAB 108031),[227] **sa 519** (LDAB 107887),[228] **sa 561** (LDAB 107760 + 107904 + 107905).[229] The script found in **sa 57** is a Biblical majuscule sloping slightly to the right. The first two strokes of *alpha* are written in a single movement and the oblique stroke descending from left to right extends, albeit only a little, below the base line; *beta* is written in three strokes (first the vertical and then the two curved strokes penned separately); the oblique stroke descending from left to right in *delta* is slightly extended upwards and the horizontal stroke marked off by the oblique strokes; there is a pronounced thickening at the ends of the curves in *epsilon* and *sigma*; the oblique stroke descending from left to right in *mu* is of medium thickness, while in *nu* it is of minimal thickness, but in both letters it starts slightly below the upper end of the first vertical stroke; the horizontal stroke of *tau* has rectangular decorative serifs at either end; *phi* has a very small bowl (smaller than *omicron*)

224 Cavallo / Crisci / Messeri / Pintaudi (eds) 1998, pl. CXXVII.

225 Seider 1967, 99, no. 53.

226 On the dating of the Biblical majuscule in this codex, also see Cavallo 1967a, 59.

227 Emmel 1990, 24–27, pls 3–4: Theodore C. Petersen suggested a dating to the fourth or fifth century.

228 Delaport 1905, with plate.

229 Quecke 1977, pls 1–3; Quecke 1972, pls 1–3; Quecke 1984, pls 1–3.

and the vertical stroke just breaks the bilinear space; *gima* is shaped like a '6' and slightly breaks the bilinear space above. Round letters (*epsilon*, *omicron*, *sigma*) appear flattened onto the base line. In **sa 519** the oblique strokes descending from left to right vary between minimal and maximum thickness; in *nu* they are minimal, in *mu* they vary from medium to maximum, in *alpha*, *delta* and *lambda* they are maximum thickness. Vertical strokes which extend below the base line end with an oblique left-facing stroke; thin strokes end with decorative serifs. In **sa 561** the oblique stroke descending from left to right in *nu* is of minimal thickness, in *mu* of medium thickness, in *alpha* occasionally slightly extended below the base line, in *delta* and *lambda* is slightly curved with a small curl to the right in the upper part; the oblique strokes of *kappa* are detached from the vertical stroke.

The group of manuscripts **sa 78** (LDAB 108250), **sa 529** (LDAB 108068),[230] **sa 573** (108192) can be dated slightly later, to between the end of the fifth century and beginning of the sixth century. In **sa 78** the oblique stroke in *mu* descending from left to right is of medium thickness, while in *nu* it is of minimum thickness; the vertical strokes, whether or not they descend below the base line, end with an oblique stroke to the left, at times with another oblique stroke added; small vertical lines are noticeable at the ends of the horizontal stroke of *tau*. In **sa 529** the writing is less careful and the alignment of letters on the base line more unsteady. The oblique stroke descending from left to right in *alpha* is occasionally extended slightly below the base line; the oblique strokes of *kappa* are detached from the vertical stroke; the oblique stroke descending from left to right in *mu* is of medium thickness, in *nu* it is thin and slightly curved; *upsilon* and *rho* extend slightly below the base line. In **sa 573** the oblique stroke descending from left to right is of minimal thickness in *nu*, while in *mu* it varies between medium and minimal thickness; at the upper end of the oblique stroke descending from left to right in *alpha*, *delta* and *lambda* a small horizontal serif is added; there are large decorative square-shaped serifs at the ends of thin strokes.

4.3.3 Third phase (first half of sixth century)

Other manuscripts show a further stage in the development of Biblical majuscule, characterised above all by a mannered writing angle, because of which—in a way which is even more accentuated than we find in Greek Biblical majus-

230 Layton 1987, 39, no. 35, pl. 16.3.

cule—the oblique strokes tend to be very thin while the vertical strokes are very thick. The letter *mu*, with both the oblique strokes of minimum thickness, shows this phenomenon most clearly in Coptic, whereas in Greek Biblical majuscule the oblique stroke descending from left to right tends to maximum thickness. In **sa 542** (LDAB 108002; Fig. 43),[231] which comes from the White Monastery and can be dated to the beginning or first half of the sixth century, the oblique strokes in *mu* and *nu* are all of minimal thickness; vertical strokes which extend below the base line—though this can be seen also in *iota* and *tau*—end with an oblique left-facing stroke; thin strokes end regularly with ornamental serifs; the loop of *alpha* is rounded; *beta* is written in four strokes and the lower bowl is larger than the upper one, which is reduced to a small loop; *gima* just breaks the bilinear space above.

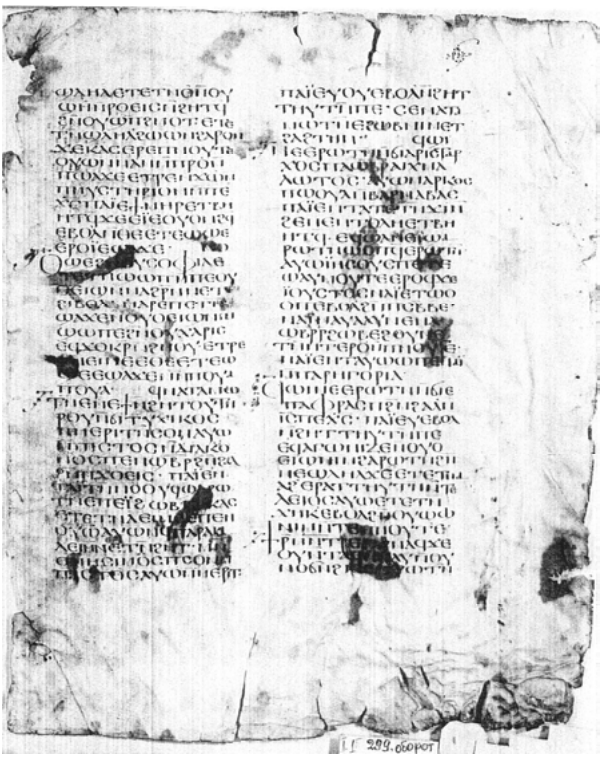

Fig. 43: *Biblia Coptica* 3.3 (2004), sa 542.

231 Elanskaya 1991, 230-231; Elanskaya 1994, 470–472, pls 183–184.

Another group of manuscripts which can be dated to this period shows this phase of Coptic Biblical majuscule more clearly: **sa 64** [LDAB 108367; Fig. 44],[232] **sa 95** [LDAB 108492], **sa 549** [LDAB 108189],[233] and **sa 61** [LDAB 113927].[234] In **sa 64** the strokes which extend below the base line have an oblique leftwards stroke; rounded letters (*epsilon*, *omicron*, *sigma*) have a slightly enlarged module and extend beyond the upper line; the oblique strokes of *kappa* are detached from the vertical stroke; in *mu* the oblique strokes meet well above the base line and the righthand stroke joins the vertical stroke with a small horizontal stroke (in the shape of a 'bridge'); at the end of a line, however, examples can be found of *mu* written in three strokes with a wide middle curve. **Sa 95** is a palimpsest from the White Monastery in which the *scriptio superior* is a Syriac text (tenth–eleventh century) and the *scriptio inferior* is written in Coptic Biblical majuscule. The oblique strokes of *kappa* are detached from the vertical stroke and the oblique stroke descending from left to right of *upsilon* twists. In **sa 549**, the slope of the writing is slightly to the right; thanks to a particular effect of chiaroscuro, *epsilon, omicron* and *sigma* seem to be divided vertically in half; the vertical strokes which descend below the base line end with a small stroke to the left (but this can also be seen in *tau*). In **sa 61** the oblique strokes descending from left to right in *alpha* and *lambda* end in a point—the stroke gradually thins to the lower end; the oblique strokes of *mu* are curved; all the vertical strokes (both those which extend below the base line and those which rest on the line) end with a small stroke to the left.

232 Boud'hors / Nakano / Werner 1996, 25, pl. 5.

233 Layton 1987, pl. 1.4,

234 Wessely 1909, no. 19 a–c, with plate.

Fig. 44: *Biblia Coptica* 1.3 (1998), sa 64.

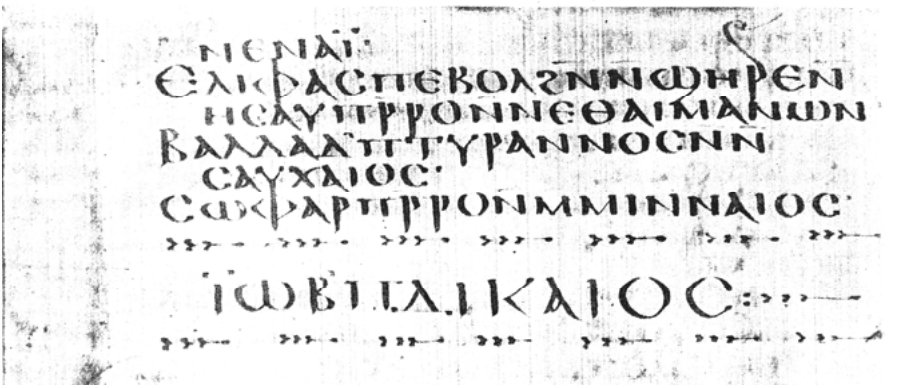

Fig. 45: *Biblia Coptica* 1.2 (1996), sa 30.

Fig. 46: *Biblia Coptica* 1.1 (1995), sa 9.

Similar general characteristics can be found in **sa 505** (LDAB 107868),[235] **sa 512** (LDAB 108571), **sa 30** (LDAB 108491; Fig. 45),[236] and **sa 9** (LDAB 108532; Fig. 46),[237] all datable to the first half of the sixth century. Oblique strokes in *mu*, *nu*, *upsilon* (though only the righthand stroke) are of minimal thickness; in all the other letters they vary from medium to maximum thickness. The oblique stroke descending from left to right in *alpha*, *kappa* and *lambda* extend below the base line. The oblique strokes of *kappa* are detached from the vertical stroke. Decorative serifs are prominent at the ends of thin strokes. In **sa 30**, leaves coming from the White Monastery, the oblique stroke descending from left to right in *kappa* and *lambda* is less regular; the bowl of *phi* is a rhomboid

235 Thompson 1932, X–XIII, XV–XVII, pls 1–6. A subscription with the name of the scribe (Pshoi) can be found on f. 199v.

236 Hyvernat 1888, pl. 5.2; Ciasca 1889, XVIII–XIX, pl. XIX; Leroy 1974a, pl. 111; Romano 1993, 42–43, pl. II.

237 See Ciasca 1885, XVIII–XIX, pl. VI; Boud'hors 1998, 15–17, with plate (117–118).

shape and slightly breaks the bilinear space; the oblique stroke descending from left to right in *mu* is of medium thickness; the horizontal stroke of *delta* extends beyond the juncture with the oblique strokes and on occasion has ornamental serifs at either end.

The manuscript **sa 19** (LDAB 107762),[238] a palimpsest with a Syriac *scriptio superior* (dated 913) and a Coptic *scriptio inferior*, can be dated to the same period. The Biblical majuscule is artificial; the oblique stroke descending from left to right in *alpha* extends slightly below the base line; both the oblique strokes of *mu* are of minimal thickness and are joined well above the base line; the oblique stroke of *nu* is of minimal thickness; there are decorative serifs at the end of thin strokes.

4.3.4 Fourth phase (second half of sixth century—beginning of ninth century)

The manuscripts **sa 98** (LDAB 107915),[239] **sa 80** (LDAB 107870),[240] **sa 111** (LDAB 108567), dating from the second half of the sixth century, belong to an advanced phase of the development of Biblical majuscule. **Sa 98** has a slightly lengthened module and a mannered chiaroscuro. The oblique stroke of *nu* is of minimal thickness and starts below the upper end of the first vertical stroke; in *mu* the oblique strokes are written without lifting the pen from the page, forming a curve placed well above the base line; *rho* and *upsilon* extend slightly below the base line; the vertical strokes that extend below the base line have a small oblique stroke turned to the left; the oblique strokes of *kappa* are detached from the vertical stroke. In **sa 80** the oblique strokes descending from left to right vary from minimal thickness (in *nu*) to maximum. The ends of the thin strokes have ornamental thickenings; the strokes that extend below the base line end with an oblique stroke to the left; the upper end of the oblique stroke descending from left to right *of delta* is thickened; *mu* is written in four strokes (the lefthand stroke is of medium thickness) but there are examples of looped *mu*. A highly artificial Biblical majuscule is found in **sa 111** and the structure of the letters is laboured, as if the scribe were imitating a model. The ends of the curved strokes of *epsilon* and *sigma* have ornamental serifs, as do the horizontal strokes of *epsilon* and *tau*, and the righthand oblique stroke of *upsilon*. The hori-

238 Thompson (ed.) 1911. The Syriac text includes works by Evagrios Pontikos, Johannes Chrysostom and others; see Wright 1871, 819–823, no. 812; Hyvernat 1888, pls 7.1 and 56.1.

239 Rossi 1883, pl. III.

240 Thompson 1932, XIV–XV, XVIII–XX, pls 11–13.

zontal stroke of *delta* does not extend beyond the join with the oblique strokes. In *mu* the oblique stroke descending from left to right is of medium thickness.

Manuscripts **sa 523** (LDAB 108190; Fig. 47)[241] and **sa 500** (LDAB 107945) can be dated to between the end of the sixth and the beginning of the seventh century. In **sa 523**, leaves from the White Monastery, there is a highly artificial use of chiaroscuro as well as pronounced ornamental thickenings at the end of thin strokes. The oblique stroke descending from left to right in *alpha* is slightly extended beyond the base line; both the oblique strokes of *mu* are of minimum thickness; the vertical strokes which extend below the base line end with an oblique stroke to the left. As a result of the chiaroscuro play of thick and thin strokes, *epsilon* and *sigma* seem divided vertically in half. **Sa 500** has an accentuated chiaroscuro; the oblique strokes descending from left to right vary between minimum and maximum thickness. The middle stroke of *nu* is curved; the upper stroke of *epsilon* is more curved than the lower one.

Fig. 47: *Biblia Coptica* 3.2 (2003), sa 523.

241 Elanskaya 1991, 229–230, pls 71–72; Elanskaya 1994, 421–426, 431–440, pls 159–160, 164–167; P. Rainer Cent. 1983, pl. 7.

Manuscripts **sa 109** (LDAB 113928), **sa 581** (LDAB 108191) and **sa 53** (LDAB 108246), all datable to the seventh century, belong to a phase when the application of the rules of the Biblical majuscule canon was in extreme disarray. The chiaroscuro effects are even more pronounced and the structure of the letters is clearly artificial. Both the oblique strokes of *mu* are of minimum thickness; in **sa 109** they meet well above the base line, in **sa 53** they are slightly curved and meet just below the base line, and in **sa 581** the letter is occasionally formed with the so-called 'bridge' shape. In **sa 53** the oblique stroke descending from left to right in *alpha* extends below the base line. In **sa 581**—leaves from the White Monastery—both the oblique strokes of *upsilon* are of minimum thickness; there is a small horizontal serif at the upper end of the oblique strokes descending from left to right in *alpha*, *delta* and *lambda*.

The manuscripts **sa 566** (LDAB 113929),[242] **sa 578** (LDAB 113930) and **sa 585** (LDAB 113931)[243] can be dated even later, probably to between the eighth and ninth century. The chiaroscuro effects, whereby the vertical strokes are all of maximum thickness and the oblique strokes of *mu*, *nu*, *upsilon* as well as all the horizontal strokes are of minimum thickness, are extreme. The thin strokes end with heavy thickenings. In **sa 578** all the vertical strokes, both those which extend below the base line and those which rest on it, end with an oblique stroke to the left. In **sa 585** both the strokes of *mu* are curved.

4.4 Some results

From this analysis of the Biblical majuscule scripts used in Coptic manuscripts some noteworthy findings emerge. Above all there is the fact that the overall development of this style in the Coptic sphere seems to follow the same lines and the same phases found in the Greek sphere, at least throughout the fifth century and up to the beginning of the sixth century. Also in Coptic production we can trace the paradigm of the style as it moves from a phase in which all the canonical features are present in a more or less uniform fashion to one in which they are less respected and finally totally disregarded and modified. The purpose of our investigation, as mentioned above, was to see if the phases which mark the various transitions of Biblical majuscule coincide in the two cultural spheres. The only criterion to evaluate this is palaeographical: to see whether

242 Depuydt 1993, pl. 349.
243 Rutschowscaya 1986, 65.

the grid of guide-elements[244] which are used for the dating of manuscripts in Greek Biblical majuscule also works for Coptic manuscripts. On the basis of the analysis we have carried out here, it can be said that these markers largely apply in both spheres of production until the beginning of the sixth century. We can reconstruct the diachronic development of Coptic Biblical majuscule on the basis of the structural coherence of the criteria used for Greek Biblical majuscule. In other words, Coptic manuscript production using this script does not lag behind Greek production. From the first half of the sixth century—in certain manuscripts already from the beginning of the century—however, there are signs of a more idiosyncratic and independent interpretation of the style in Coptic production. The element which characterises this phase is above all the artificial writing angle which leads, more than in Greek production, to a polarisation of the chiaroscuro contrasts of the script between thick and thin strokes: the vertical strokes are all of maximum thickness whereas the horizontal ones are of minimum thickness as are—a significant feature and to a certain extent a distinctive one vis-à-vis Greek Biblical majuscule—some oblique strokes descending from left to right. These oblique strokes, which in late Greek Biblical majuscule tend to be of maximum thickness, are on occasion in Coptic production of minimum thickness: this occurs not only in *nu* (a feature found also in Greek production) but also in *mu* and in some cases in *upsilon*. Guglielmo Cavallo in his 1967 study described how in a group of Greek manuscripts datable to the end of the fourth century—P. Vindob. G 19890 (MPER N.S. IV 43; LDAB 3022), P. Vindob. G 31489 (MPER N.S. IV 48; LDAB 3040), and P. Vindob. G 19892 A (MPER N.S. III 40; LDAB 2539)—there was 'a tendency to make the middle strokes of *mu* and *nu* increasingly thin. Later, however, the oblique stroke descending from left to right of *mu* would be written almost with maximum thickness as a result of the increasing taste for effects of contrast'.[245] Viktor Stegemann had already noticed, albeit at a generalised level, that this feature was a characteristic of Coptic Biblical majuscule; in his *Koptische Paläographie* he designated a second 'phase' of Biblical majuscule starting in the fifth-sixth centuries as the 'dicke Typus des Bibelstils' or more generically 'dicker Stil': 'It (i.e. the 'thick style') is characterized by majuscules with very thick, vertical and often delicate horizontal strokes and by the kind of square shaped letters. [...] I have chosen the term 'dicker Stil' for this phase of the Coptic Biblical majuscule because of that salient feature in the writing of the letters'.[246]

244 Cavallo 1967a, 4–12.

245 Cavallo 1967a, 71, pl. 49.

246 For Stegemann's terminology, see in this volume pp. 23–24, note 54.

Besides this structural characteristic, there are other graphic forms in Coptic production which are distinctive in relation to Greek (Fig. 48):

1. *alpha*, *kappa*, and *lambda* with the oblique stroke descending from left to right extended below the line;
2. *alpha* and *lambda* with the oblique stroke descending from left to right arched;[247]
3. *nu* with the oblique stroke curved;
4. *mu* with both the oblique strokes of minimum thickness, as a result, as we have seen, of the artificial writing angle.

Fig. 48: Characteristic letters in Coptic Biblical majuscule.

While these are forms which are conspicuous in Coptic Biblical majuscule they are certainly not absent from Greek Biblical majuscule. The style of letters indicated at no. 1 can be found in the following Greek manuscripts: P. Vindob. G 36112 (MPER N.S. IV 34) + P.Vindob. G 39779 (LDAB 9210),[248] datable to the end of the fourth century, and sporadically (but only for *kappa* and *lambda*) in Wash. Freer 4 (Pauline *Epistles*; LDAB 3044),[249] datable to the sixth century; no. 3 can be found in the papyri P. Oxy. XLV 3227 (second–third century; LDAB

247 Cavallo recorded this particular Coptic feature in manuscripts that he attributed to the Egyptian-Nitrian ambience: see Cavallo 1967a, 89.

248 Cavallo 1967a, pl. 46; Orsini 2005a, pl. XXVIII.

249 Hatch 1939, pl. XXXI; Cavallo 1967a, pl. 83.

1233),[250] P. Oxy. LX 4047 (end of second century; LDAB 64),[251] P. Vindob. G 39210 (MPER N.S. IV 3; beginning of fifth century; LDAB 3258),[252] P. Berol. 16353 (BKT VIII 2; beginning of fifth century; LDAB 3225);[253] no. 4 can be found, as pointed out by Cavallo in 1967, in three manuscripts datable to the close of the fourth century: P. Vindob. G 19890 (MPER N.S. IV 43; LDAB 3022),[254] P. Vindob. G 31489 (MPER N.S. IV 48; LDAB 3040),[255] P. Vindob. G 19892 A (MPER N.S. III 40; LDAB 2539).[256] Finally no. 2 can be found in the largest number of Greek manuscripts (where this style of letter also applies to *delta*): P. Oxy. LII 3663 (second–third century; LDAB 2020),[257] P. Oxy. LX 4051 (end of second century; LDAB 65),[258] P. Oxy. XXII 2334 (third–fourth century; LDAB 107),[259] P. Lond. Lit. 33 (fourth century; LDAB 1259),[260] P. Berol. 5011 (BKT VIII 15; end of fourth century; LDAB 3266),[261] P. Vindob. G 36112 + P. Vindob. G 39779 (end of fourth century), Leid. Voss. Gr. Q. 8 + Paris. gr. 17 + Petropol. RNB gr. 3 (cod. Sarravianus; fourth–fifth century; LDAB 3202),[262] P. Vindob. G 39210 (beginning of fifth century; LDAB 3258),[263] Wash. Freer 1 (*Deuteronomy* and *Joshua;* end of fifth century; LDAB 3288),[264] Lond. Add. 17210 (fifth–sixth century; LDAB 2231),[265] Wash. Freer 4 (Pauline *Epistles*; sixth century), Cantabr. MS. T-S 12.184 + 20.50 (middle of sixth century; LDAB 3268).[266]

Since the Coptic manuscripts were certainly written in Egypt, they may provide useful evidence for a definition of regional graphic styles of Greek-Egyptian Biblical majuscule.[267] In other words, it might be possible to use the features just

250 Orsini 2005a, pl. V.
251 Orsini 2005a, pl. XIII.
252 Orsini 2005a, pl. XXVII.
253 Cavallo 1967a, pl. 51 a; Cavallo / Maehler 1987, pl. 24 b.
254 Cavallo 1967a, pl. 49 a.
255 Cavallo 1967a, pl. 49 b.
256 Orsini 2005a, pl. XIX.
257 Orsini 2005a, pl. VII.
258 Orsini 2005a, pl. XIV.
259 Cavallo 1967a, pl. 29.
260 Cavallo 1967a, pl. 30.
261 Cavallo 1967a, pl. 44.
262 Omont 1897; Cavallo 1967a, pl. 50.
263 Orsini 2005a, pl. XXVII.
264 Sanders 1910; Cavallo 1967a, pl. 78.
265 Cavallo 1967a, pl. 81.
266 Burkitt 1897, with plate after p. 34; Cavallo 1967a, pl. 74.
267 For the characteristics of Greek Biblical majuscule in the Egyptian region, see the paragraphs 3.5.2.6–7 of the *Greek Biblical Majuscule* chapter in this volume.

singled out, which, as we have seen, can also be found in Greek manuscripts, as guide-elements for the geographical placement of Greek manuscripts written in Biblical majuscule. Yet such an operation is far from straightforward as not all these characteristics can be used in the same way for this purpose. For example, in some cases, particularly for nos 2 and 3, there are Greek manuscripts (P. Oxy. 4047, 4051, 3227, 3663) which belong to the formative phase of Biblical majuscule, i.e. between the end of the second century and the beginning of the third century, in other words before Coptic began to be used as a script. As a consequence, in relation to these two forms, it is certainly not possible to state that they were 'created' in the Coptic sphere. Instead it should be recognised—at least on the basis of the evidence we have looked at here—that these were ways, generically speaking, of writing Biblical majuscule in Egypt and therefore quite naturally to be found both in Greek and Coptic areas; it could also be asserted—giving a historical slant on the analysis—that they survived more conspicuously in Coptic manuscript production than in Greek.

Furthermore, the fact that some of these Greek manuscripts predate the fifth century—the period which hitherto has been seen as marking the beginnings of regional differences (the so-called phenomenon of 'particolarismo grafico' in Cencetti's phrase) within the Biblical majuscule style[268]—should encourage us to become aware that even before this watershed there was no such thing as a perfect, monolithic way of writing Biblical majuscule, with no deviation or discrepancy from an ideal model. It is certainly the case that, up to the fourth century, to judge from surviving manuscripts, there was undoubtedly a basic structural and formal homogeneity in the script which began to weaken gradually from the fifth century onwards. But that is not to say that until the fifth century there were no internal differences at all in the way Biblical majuscule was written. The nub of the problem is that it is extremely difficult in this earliest phase of the style to trace lines of demarcation which are sufficiently watertight between groups of manuscripts on the basis of their containing more or less distinguishing characteristics.

The letter forms in nos 1 and 4, on the other hand, have a different significance for the purposes of working out the geographical coordinates of Biblical majuscule. The forms in group 1 appear only sporadically in Greek production and only (at least in the light of present knowledge) from the end of the fourth century. These therefore would appear to be forms of writing which emerged and spread especially in Coptic areas. Even more specific is form 4, which re-

268 Cavallo 1967a, 84–104; Orsini 2005a, 200–211.

lates to a particular writing angle that characterised Coptic Biblical majuscule from the first half of the sixth century onwards.

Finally and for the sake of completeness, it is worth making the following observation. Among the Greek manuscripts just listed as containing examples of Coptic letter forms, there are several for which a geographical origin has already been proposed. These are Wash. Freer 1, Wash. Freer 4, Lond. Add. 17210, P. Berol. 16353 which Guglielmo Cavallo has attributed to a 'Egyptian-Nitrian ambience'[269] and Edoardo Crisci assigns to 'Mesopotamia'.[270] Yet these geographical locations have been proposed for other manuscripts in which none of these letter forms appear: Lond. Add. MS 17211 (LDAB 2892), P. Berol. inv. 6794 (LDAB 2205), Paris. gr. 9 (LDAB 2930), P. Berol. inv. 13929 + P. Berol. inv. 21105 (LDAB 367), P. Paris inv. E 6678 + P. Vindob. G 26002 (LDAB 4005).[271] But if we apply formal palaeographical analysis as a criterion, the Greek manuscripts which also contain Coptic letter forms should be re-assigned to Egypt, separating them out from these other Greek manuscripts which have all been seen—not without some hesitation[272]—as coming from the same geographical area.

4.5 The Codex Tchacos

In addition to the manuscripts which have so far been the object of our attention, I would like to look briefly at the so-called Codex Tchacos (LDAB 108481).[273] This is a papyrus codex (16×29 cm), of which thirty-three leaves (= sixty-six pages) have survived, and which was discovered during a clandestine excavation (possibly in 1978) in Middle Egypt inside a tomb carved out in the cliffs of Jebel Qarara on the right bank of the Nile, outside the village of Ambar near Maghagha, sixteen kilometres to the north of El Minya. This codex has had an adventurous career, passing through several owners.[274] On 3 April 2000 it was sold by the dealer in Egyp-

269 Cavallo 1967a, 87–93; Cavallo / Maehler 1987, pl. 24 b.

270 Crisci 1996, 150–153.

271 Cavallo 1967a, 87–93; Cavallo / Maehler 1987, pl. 24c; Crisci 1996, 150–153; Orsini 2005a, 204–206.

272 It should be noted that the graphic features of Paris. gr. 9 and Wash. Freer 4, are not completely homogeneous with the others, as already pointed out by Crisci 1996, 150–153; see also Orsini 2005a, 205.

273 See Brankaer / Bethge 2007; Plisch 2006. The codex contains the following texts: pp. 1–9, *the Letter of Peter to Philip* [text similar to that preserved in NHC II]; pp. 10–32, *James* [text similar to the one preserved in NHC V]; pp. 33–58, *the Gospel of Judas*, new text; pp. 59–66, *the Book of Allogenes*.

274 For the history of its discovery and ownership, see Krosney 2006; Cockburn 2006.

tian antiquities Hanna Asabil to Frieda Tchacos Nussberger; on 9 September in the same year Nussberger sold it to an American antiquarian dealer (of Italian origin) Bruce Ferrini who, however, was unable to pay for it and was obliged to give it back to her; on 19 February 2001 it was acquired from Nussberger by the Maecenas Foundation for Ancient Art in Basel with the aim of restoring and studying it and then returning it to Egypt.

All the leaves have been torn about a third of the way down (Fig. 49), dividing each page into two parts. As a result, the page numbers 5, 31–32, 49–66 have disappeared.

Fig. 49: Codex Tchacos (2001).

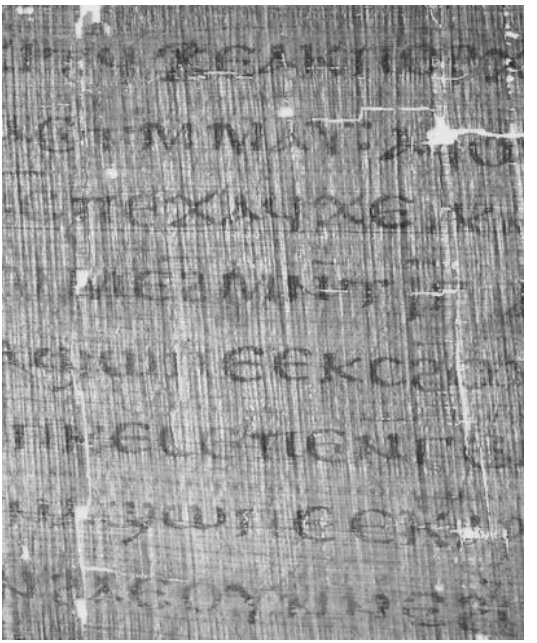

Fig. 50: Codex Tchacos, p. 46.

The manuscript has become well-known for the text it contains, the unpublished *Gospel of Judas*. The news of its discovery was given on 24 July 2004 by Rodolphe Kasser on the occasion of the VIII Congress of the International Association for Coptic Studies held in Paris. In his contribution Kasser proposed a dating of the manuscript to between the fourth and fifth centuries.

Between December 2004 and January 2005 the process of radiocarbon dating was carried out by A.J. Timothy Jull, director of the National Science Foundation—Arizona Accelerator Mass Spectrometer Facility in Tucson.[275] For the purposes of the carbon dating various samples from the main body of the codex and from the surviving binding were used; from the testing a date range of 220 to 340 CE emerged.[276]

It is unfortunate, however, that palaeographical analysis does not confirm the radiocarbon dating. The script in the codex is a Biblical majuscule (Fig. 49–50), written at an irregular angle so that the oblique strokes descending from

275 On radiocarbon dating, see Krosney 2006, 271–274, 301–304.
276 Krosney 2006, 271.

left to right vary from medium to minimum thickness (in *nu*); ornamental serifs are used for the ends of thin strokes (the horizontal stroke of *gamma*, *delta* [only the left end], *epsilon* and *tau*, the upper oblique stroke of *kappa* and the righthand oblique stroke of *upsilon*). *Alpha* is written in two stages, with the first two strokes looped and the oblique stroke descending from left to right curved and with a small serif on the upper end; *beta* is written in four strokes; *mu* is in four strokes, and has the so-called 'bridge' form, with the oblique stroke descending from left to right of medium thickness; the oblique stroke of *nu* is curved; the strokes which extend below the base line in *rho* and *upsilon* sometimes end with an oblique stroke to the left. Relevant palaeographical comparisons can be made with the Greek manuscripts Leid. Voss. Gr. Q. 8 + Paris. gr. 17 + Petropol. RNB gr. 3 (Sarravianus; fourth–fifth century; LDAB 3202)[277] and P. Amh. I 1 (beginning of fifth century; LDAB 5989).[278]

Thus the palaeographical analysis indicates a possible dating to between the end of the fourth century and the beginning of the fifth century, while the method of radiocarbon dating suggests between 220 and 340. To attribute a manuscript written in this form of Biblical majuscule to approximately the middle of the fourth century would mean bringing forward the start of the process of transformation of the canon of Biblical majuscule in the Coptic world by about half a century in relation to the Greek world.

One hypothetical solution for reconciling the findings of the radiocarbon and palaeographical analysis would be that the actual papyrus was made around the middle of the fourth century but was only used for writing on at least half a century after this. But there is no certain evidence that this was the case.

4.6 Addendum

In the years following 2006—when my investigation on Coptic Biblical majuscule was concluded—Karlheinz Schüssler published additional volumes to his *Biblia Coptica*. The present *Addendum* lists all the newly published manuscripts written in Biblical majuscule, to which I attribute a date on the basis of the palaeographical criterion applied in the course of my investigation and discussed in the present chapter.

277 Omont 1897; Cavallo 1967a, pl. 50.
278 Cavallo 1967a, pl. 53.

Sigla Schüssler	LDAB	Date	Date Orsini	Photo
sa 122	244010	501–700 (Munier)	501–600	*Biblia Coptica* 2.1 (2012), Taf. 1
sa 123	126162	501–700 (Feder)	601–700	*Biblia Coptica* 2.1 (2012), Taf. 1
sa 125	107730	301–500 (Feder)	375–425	*Biblia Coptica* 2.1 (2012), Taf. 2
sa 126	108248	301–350? (Feder)	301–400	*Biblia Coptica* 2.1 (2012), Taf. 2
sa 133	130504	801–900 (Schüssler)	400–450	*Biblia Coptica* 2.1 (2012), Taf. 3
sa 135		401–600 (Feder); 801–900 (Amelineau; Brooke)	801–900	*Biblia Coptica* 2.1 (2012), Taf. 4
sa 141	244012	401–600 (Feder)	501–600	*Biblia Coptica* 2.1 (2012), Taf. 5
sa 142	108181	501–600 (Boud'hors; Feder)	501–600	*Biblia Coptica* 2.1 (2012), Taf. 6
sa 144	130505	about 601–700 (Schüssler)	550–650	*Biblia Coptica* 2.1 (2012), Taf. 6
sa 150	113252	401–500 (Delattre)	450–550	*Biblia Coptica* 2.1 (2012), Taf. 8
sa 157	107813	401–600 (Kahle)	501–600	*Biblia Coptica* 2.1 (2012), Taf. 9
sa 160	113253	401–500 (Delattre)	401–500	*Biblia Coptica* 2.1 (2012), Taf. 10
sa 163	108505	501–700 (Pezin)	501–600	*Biblia Coptica* 2.1 (2012), Taf. 11
sa 167	244009	about 501–600 (Schüssler)	501–600	*Biblia Coptica* 2.1 (2012), Taf. 12
sa 170		401–500 (Munier); 901–1100 (Van Haelst; Rahfs; Schüssler)	801–900	*Biblia Coptica* 2.1 (2012), Taf. 13
sa 171	108177	401–600 (Feder); 501–600 (Till)	501–600	*Biblia Coptica* 2.1 (2012), Taf. 13
sa 179	108501	501–700 (Pezin)	601–700	*Biblia Coptica* 2.1 (2012), Taf. 15
sa 183	244015	401–500 (Till), 501–600 (Till)	501–600	*Biblia Coptica* 2.1 (2012), Taf. 16
sa 184	108465	401–500 (Till)	501–600	*Biblia Coptica* 2.1 (2012), Taf. 16

Sigla Schüssler	LDAB	Date	Date Orsini	Photo
sa 187	107819	401–500 (Kahle)	not visible image	*Biblia Coptica* 2.2 (2015), Taf. 1
sa 189	108178	501–600 (Feder)	551–600	*Biblia Coptica* 2.2 (2015), Taf. 2
sa 193	107874	401–500 (Husselman); 501–600 (Schüssler); 501–701 (APIS)	451–500	*Biblia Coptica* 2.2 (2015), Taf. 3
sa 195	697548	401–600 (Feder); 901–1000 (Schüssler)	475–525	*Biblia Coptica* 2.2 (2015), Taf. 3
sa 202	107911	501–600 (Schüssler)	501–550	*Biblia Coptica* 2.2 (2015), Taf. 5
sa 203	107792	501–600 (Kahle)	501–550	*Biblia Coptica* 2.2 (2015), Taf. 5
sa 205	699463	601–700 (Crum)	701–800	*Biblia Coptica* 2.2 (2015), Taf. 6
sa 206	108025	401–600 (Boud'hors)	701–800	*Biblia Coptica* 2.2 (2015), Taf. 6
sa 208	107791	301–500 (Drescher); 401–500 (Butts; Schüssler)	401–500	*Biblia Coptica* 2.2 (2015), Taf. 6
sa 213	108149	501–700? (Boud'hors)	651–750	*Biblia Coptica* 2.2 (2015), Taf. 8
sa 221	699465	501–600 (Schüssler)	501–550	*Biblia Coptica* 2.2 (2015), Taf. 10
sa 223		901–1000 (Schüssler)	801–900	*Biblia Coptica* 2.2 (2015), Taf. 10
sa 228	699466	701–800 (Schüssler)	801–900	*Biblia Coptica* 2.2 (2015), Taf. 11
sa 231	699467	501–600 (Schüssler)	651–750	*Biblia Coptica* 2.2 (2015), Taf. 12
sa 239	699468	501–700? (Louis)	551–650	*Biblia Coptica* 2.2 (2015), Taf. 14
sa 241	107793	401–600 (Kahle)	551–600	*Biblia Coptica* 2.2 (2015), Taf. 15
sa 250	699470	701–800 (Louis)	551–650	*Biblia Coptica* 2.2 (2015), Taf. 17
sa 586	113932	701–800 (Horner); 701–900 (Crum)	551–650	*Biblia Coptica* 4.1 (2007), Taf. 1
sa 601 (*scriptio superior*)	108069	401–600 (Crum)	451–500	*Biblia Coptica* 4.1 (2007), Taf. 4

Sigla Schüssler	LDAB	Date	Date Orsini	Photo
sa 610	108044	401–500 (Luft); 501–600 (Beltz); 501–800 (Schubart)	551–600	*Biblia Coptica* 4.1 (2007), Taf. 7
sa 612–613	108048	501–700 (Balestri; Cramer); 601–700 (Horner; Petersen; Till); 701–900 (Crum; Hyvernat; Kasser); 901–1100 (Layton)	651–750	*Biblia Coptica* 4.1 (2007), Taf. 7
sa 616	129927	601–700 (Schüssler)	601–700	*Biblia Coptica* 4.1 (2007), Taf. 8
sa 623	129915	401–450 (Roca Puig)	475–525	*Biblia Coptica* 4.2 (2009), Taf. 1
sa 624	108194	601–700 (Till)	501–550	*Biblia Coptica* 4.2 (2009), Taf. 1
sa 629	108956	501–700 (Orlandi); 601–700 (Horner; Schüssler); 701–800 (Till); 801–900 (Till)	701–800	*Biblia Coptica* 4.2 (2009), Taf. 3
sa 630		901–1000 (Schüssler)	551–650	*Biblia Coptica* 4.2 (2009), Taf. 3
sa 633	107796	501–700 (Maspero); 601–700 (Crum; Schüssler; Willis)	501–550	*Biblia Coptica* 4.2 (2009), Taf. 4
sa 635	129919	401–500	551–600	*Biblia Coptica* 4.2 (2009), Taf. 4
sa 637	129920	401–500 (Winstedt); 501–600 (Horner; Schüssler)	501–600	*Biblia Coptica* 4.2 (2009), Taf. 5
sa 643	107809	301–500 (Kahle); 401–600 (Quecke); 501–600 (Schüssler)	450–550	*Biblia Coptica* 4.2 (2009), Taf. 6
sa 644	108185	301–400 (Roca Puig)	401–500	*Biblia Coptica* 4.2 (2009), Taf. 6
sa 645	129923	501–700 (Schüssler)	451–550	*Biblia Coptica* 4.2 (2009), Taf. 7
sa 648	128640	501–700 (Orlandi; Tisserant); 601–700 (Balestri; Schüssler)	701–800	*Biblia Coptica* 4.2 (2009), Taf. 7
sa 651	108075	501–700 (Schenke)	651–750	*Biblia Coptica* 4.2 (2009), Taf. 8

Sigla Schüssler	LDAB	Date	Date Orsini	Photo
sa 652	129926	501–600 (Schenke)	551–650	*Biblia Coptica* 4.2 (2009), Taf. 8
sa 656	107922	401–500 (Horner); 401–450(Roca Puig)	501–600	*Biblia Coptica* 4.2 (2009), Taf. 9
sa 661		*ante* 10.12.1004 (Layton)	501–600	*Biblia Coptica* 4.2 (2009), Taf. 11
sa 663	108507	401–600 (Pezin)	551–600	*Biblia Coptica* 4.2 (2009), Taf. 11
sa 666	108510	501–600 (Pezin)	551–600	*Biblia Coptica* 4.2 (2009), Taf. 12
sa 667	108511	501–700 (Remondon)	501–600	*Biblia Coptica* 4.2 (2009), Taf. 12
sa 680	108079	501–600 (Quecke)	551–600	*Biblia Coptica* 4.3 (2010), Taf. 2
sa 683		901–1000 (Schüssler)	501–600	*Biblia Coptica* 4.3 (2010), Taf. 3
sa 684		801–900? (Schüssler)	651–750	*Biblia Coptica* 4.3 (2010), Taf. 3
sa 685	107940	401–500 (Till)	451–550	*Biblia Coptica* 4.3 (2010), Taf. 4
sa 686	107823	501–600 (Kahle; Schüssler); 601–700 (Horner)	452–500	*Biblia Coptica* 4.3 (2010), Taf. 4
sa 693	107824	401–500 (Kahle); 601–700 (Horner)	501–600	*Biblia Coptica* 4.3 (2010), Taf. 6
sa 695	108198	401–500 (Horner); 501–600 (Leipoldt; Schüssler)	401–450	*Biblia Coptica* 4.3 (2010), Taf. 6
sa 710	113254	401–500 (Delattre)	501–600	*Biblia Coptica* 4.3 (2010), Taf. 10
sa 713	129951	501–600 (Horner)	501–550	*Biblia Coptica* 4.3 (2010), Taf. 11
sa 716		801–900? (Schüssler)	651–750	*Biblia Coptica* 4.3 (2010), Taf. 11
sa 717		801–900 ? (Schüssler)	701–800	*Biblia Coptica* 4.3 (2010), Taf. 12
sa 721	108375	501–600 (Boud'hors); 701–900 (Schüssler)	551–650	*Biblia Coptica* 4.4 (2011), Taf. 1
sa 729	108949	601–700 (Till; Kasser)	751–850	*Biblia Coptica* 4.4

Sigla Schüssler	LDAB	Date	Date Orsini	Photo
				(2011), Taf. 3
sa 731	243989	501–600 (Schenke)	551–600	*Biblia Coptica* 4.4 (2011), Taf. 4
sa 751	243991	401–500? (Kasser); 501–600 (Schüsserl; Till)	551–650	*Biblia Coptica* 4.4 (2011), Taf. 9
sa 752		901–1100 (Schüssler)	551–650	*Biblia Coptica* 4.4 (2011), Taf. 9
sa 754		601–700 (Horner); 701–800 (Balestri; Horner; Leipoldt); 801–900 (Till); X–XI (Schüssler); 1001–11000 (Horner)	751–850	
sa 758	130510	501–600 (Schüssler)	501–600	*Biblia Coptica* 4.4 (2011), Taf. 10
sa 765		901–1000 (Schüssler)	751–850	*Biblia Coptica* 4.4 (2011), Taf. 14
sa 773		901–1100 (Schüssler)	751–850	*Biblia Coptica* 4.4 (2011), Taf. 16

5 Sloping Pointed Majuscule

5.1 Previous studies

Among the Greek majuscule bookhands from late Antiquity and the Byzantine era, sloping pointed majuscule has been the least studied in a systematic and comprehensive way. The history of previous scholarship on this script can be roughly divided into three periods: the first period extends from the work of Bernard de Montfaucon[279] to that of Viktor Gardthausen,[280] and is above all characterised by the absence or minimal presence of papyrus documents from archaeological excavations;[281] the second begins in the years following the second edition of Gardthausen's manual (1911–1913) and lasts until the early 1970s, when the evidence from papyrus documents, investigated with palaeographical criteria and in ever greater detail , was by now substantial and led inevitably to a rethinking of the historical framework for this script; and finally a third phase, beginning in 1974, with the first international conference on Greek palaeography held in Paris, until the present. This later period is marked by Edoardo Crisci's work on the upright pointed majuscule which,[282] while not concerned directly with the history of sloping pointed majuscule, has had a significant impact on it.

As far as the first period is concerned, Bernard de Montfaucon[283] pays almost exclusive attention to modular contrast and the slope of the script. He sees the bridge from the seventh to the eighth century as a crucial transition for Greek majuscules, with the passage from majuscules with square and round letters (documented until the seventh century)[284] to those found from the seventh century onwards with long narrow letter-forms and written with a slope either to the left or right. Montfaucon's 'evolutionary' vision of the history of Greek majuscules, with its emphasis on the aspect of conscious choice, has been shared by some later palaeographers,[285] Gardthausen among them. He sees sloping pointed majuscule as the result of a conscious and deliberate substitution of letters with a square module

279 Montfaucon 1708.

280 Gardthausen 1879; Gardthausen 1911; Gardthausen 1913.

281 The Herculaneum Papyri came to light in the years 1752–1754; during the early nineteenth century, a number of papyri found by chance circulated unsystematically in the European antiquarian trade. However, the most significant discoveries were those made between the 1870s and the first decades of the twentieth century: see Cuvigny 2009.

282 Crisci 1985.

283 Montfaucon 1708, 230–231.

284 Square forms are *eta*, *mu*, *nu*, *pi*; round forms are *epsilon*, *theta*, *omicron*, *sigma*, *phi*.

285 See, for instance, Placentinio 1735, 45; Thompson 1893, 154–155; Thompson 1912, 211.

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https://doi.org/10.1515/9783110575446-005

and rounded forms with letters with a rectangular module and oval forms.[286] It is this tendency to substitute letter forms which Gardthausen seeks to trace (in Greek scripts but not exclusively Greek)[287] in the period from the sixth to the eighth century. Indeed he sees the style achieving a structural consolidation in the eighth century, based on two codices which he dates to this time: the *scriptio inferior* of the palimpsest Ambr. L 99 sup. (Anthemius of Tralles, mathematical fragments)[288] and Lond. BL Add. 26113 (liturgical texts).[289]

The first criticism of this interpretation came with the work of the papyrologists Bernard Pyne Grenfell and Arthur Surridge Hunt who, in their introduction to the first volume of their catalogue of the Amherst papyri, maintain that 'the oval, sloping style of uncial' emerged from a precise style of script found in papyri from the second to third century—which only later, in 1925, was termed, by Wilhelm Schubart, the 'strenger Stil' or 'severe style'[290]—rather than from a generic 'square uncial' from the seventh century onwards.[291] This was an important contribution, made possible only on the evidence provided by Egyptian papyri.

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286 Gardthausen 1879, 141. The following passage in the manual (unchanged in the 1913 edition) is emblematic of his position in the debate: 'as the Gothic pointed arch developed from the Romanesque semicircular arch in two stages in the course of the late Middle Ages—barely noticeable at the beginning and then increasingly evident—so a pointed style in Byzantine writing developed in stages, initially as a subtle change involving only single letters, but later as a more decisive stylistic elaboration encompassing all the letters of the alphabet and eliminating from them any curved or squared forms' (Gardthausen 1879, 154; Gardthausen 1913, 144).

287 In the 1913 edition, Gardthausen cites examples of pointed majuscule—both sloping and upright—in the margins or in the text (such as transcriptions of single words) of a number of Syriac manuscripts dated with certainty to the years 586, 650–660, 675, 697, and 719 by internal or circumstantial evidence: see Gardthausen 1913, 144–146.

288 Wattenbach 1876, pl. 6; Belger 1881; CLA III (1938), no. 353 (*scriptio superior*: pre-Caroline minuscule from Northern Italy, second half of the eighth century); Cavallo 1977b, 113, pl. 1b (mid-sixth century); LDAB 7703 (sixth century).

289 *PS* s. II, I (1884–1894), pl. 4 (eighth or ninth century). It has been identified as formerly being part of the same manuscript as Sin. gr. 776 and Sin. gr. 1593: see Harlfinger 2010, 473.

290 Schubart 1925, 124. See Funghi / Messeri 1989; Funghi / Messeri 1992; Del Corso 2006; Crisci / Degni (eds) 2011, 73–74; Cavallo 2008, 105–116.

291 P. Amh. I (1900), 2–3: '[…] the oval, sloping style of uncial which is generally considered to have developed out of the square uncial during the seventh century is in reality quite independent of the square uncial and is developed from a third century type which was quite as common in Egypt as the prototype of the square uncial'. It is worth mentioning Sander's position on the matter: 'I believe we can assert with confidence that all of these sloping uncial hands [*i.e.* P. Cairo 10759, LDAB 1088; P. Berol. inv. 9722, LDAB 3901; P. Ryl. I 53, LDAB 2077] have no connection with the later Slavonic uncial, but are parallels to or imitations of the sloping papyrus hand of the second to fifth centuries' (Sanders 1918, 138); see also Schmid 2006, 239–240.

As far as the studies of sloping pointed majuscule produced in the second period are concerned, this is marked by, in addition to the already mentioned manual by Wilhelm Schubart, which describes, following the suggestions of Grenfell and Hunt, the close connection between the severe style and the first appearances of sloping pointed majuscule,[292] the important contribution of William Lameere to the history of this script.[293] Writing about the sloping pointed majuscule in P. Oxy. XV 1817 (Homer, *Iliad*; LDAB 2212), Lameere confirms the hypothesis that the style derives from a transformation of the severe style[294] and makes an attempt at a wider historical reconstruction. For the transition between the two scripts Lameere refers to two manuscripts for which there are certain datings: 1. P. Oxy. II 223 (Homer, *Iliad*; LDAB 2026), written on the verso of a petition dated 186 CE (P. Oxy. II 237; TM 20506); 2. P. Flor. II 108r (Homer, *Iliad*; LDAB 1773), written on the recto of a fragment from the Heroninos archive (*c.*264–266 CE) (P. Flor. II 108v; TM 11117). However, Lameere dates the formal consolidation of the elements which characterise sloping pointed majuscule to the fifth century, citing as evidence the codices PSI II 126 and Freer W of the Gospels.

Lameere's historical overview was shared by Guglielmo Cavallo in his 1967 study,[295] though he also sees sloping pointed majuscule as playing a key role in the overall synthesis of Greek majuscules and their chronological and formal relations. Cavallo states: 'it is appropriate to speak of a single canonisation of Greek majuscule with three types existing within this canon, each, it is clear, with its own graphic and cultural manifestation: the sloping pointed (the original type), fol-

292 Schubart 1925, 139–144, discussing P. Ryl. I 53 (Homer, *Odyssey*; LDAB 2077), codex Freer W of the Gospels (LDAB 2985), PSI II 126 (Menander, *Aspis* and *Misoumenos*; LDAB 2715). On codex Freer W of the Gospels (Washington, Smithsonian Institution, Freer Gallery of Art, MS. 06.274), see *NPS* s. I, I (190–1912), pl. 201 (main hand dated to the fifth century, hand of the first quire of the Gospel of John to the seventh or eighth century); Sanders 1912, v (two hands, both fourth century); Sanders 1918, 8–9, 134–139 (hand A [first quire of the Gospel of John] dated to the end of the fourth century, hand B, i.e. the rest of the manuscript, to the end of the fourth or beginning of the fifth century); Schubart 1925, 140, fig. 98; Vogels (ed.) 1929, 5, pl. 5 (end of the fourth or beginning of the fifth century); Hatch 1939, pl. 21 (main hand dated to the fifth century, hand of the first quire of the Gospel of John to the seventh century); Cavallo 1967a, 119, pl. 108 (about mid-fifth century); Cavallo / Maehler 1987, pl. 15a (end of the fourth or beginning of the fifth century); Schmid 2006, 227–249 (sixth century).

293 Lameere 1960, 177–181.

294 Lameere 1960, 177: 'the type with which it should be placed therefore is severe style, sloping to the right and perhaps with as many affinities to oval script as to Biblical uncial, which would suggest a dating of about the sixth century'.

295 Cavallo 1967a, 117–124.

lowed by the upright pointed and the round liturgical type, both of which were almost certainly the results of the influence of Biblical majuscule on the first type'.[296] In Cavallo's view, the 'sloping type' 'can be identified with the canonical form in its pure state'. He sees the first indications of the canon in PSI X 1165 (*Acts of the Apostles*; LDAB 2854) and P. Berol. inv. 13273 (Euphorion of Chalcis, *Arai*; LDAB 882), both of which can be dated to between the end of the fourth and the beginning of the fifth century. PSI II 126 and P. Oxy. XV 1818 (Homer, *Iliad*; LDAB 2207), on the other hand, can be dated to between the fifth and sixth centuries and in Cavallo's view show the canonical forms beginning to decline; in later centuries the script begins to show a certain degree of artifice and mannerism in its structure, seen in an emphasis on chiaroscuro contrasts (not because of a precise writing angle,[297] but from aesthetic choice), the tendency to accentuate the breaks in curved lines, and the use of highly stylised apices at the ends of strokes.

Some years later, in 1972, Cavallo[298] returned to the question of the canonical majuscules, suggesting that there was an internal distinction within the canons between different stylistic 'types' as a result of different interpretations and executions of the canonical norms. In relation to pointed majuscules, he draws a distinction between 'vertical types (P. Oxy. VI 849 [*Acts of St Peter*]) and sloping types (P. Cairo inv. 43227 [Menander and Eulopis])'.[299] So once again, several years on from his 1967 study, Cavallo emphasises the view that sloping and upright pointed majuscules are not two canonical scripts but rather two types existing within the same canon.

The third phase of research is marked by Cavallo's contribution to the 1974 Paris conference[300]—in the wider context of his work on Greek majuscules between the eighth and eleventh centuries—in which he reconstructs the history of sloping pointed majuscule and distinguishes three geographical areas involved in its production (Constantinople, Palestine and the Greek Southern Italian world). As for the chronological development of the material the key element is the 'increasing mannerism' found in the script from the eighth century onwards,[301] applying the paradigm of moving from simple to more complex forms used before by other palaeographers working on Greek majuscules.[302] The three geographical distinctions,

296 Cavallo 1967a, 118.
297 For the interpretation of the 'writing angle', see Crisci / Degni (eds) 2011, 22–24; see also Cavallo / Fioretti 2014.
298 Cavallo 1972.
299 Cavallo 1972, 135.
300 Cavallo 1977a, 98–103.
301 Cavallo 1977a, 98.
302 See, for instance, Thompson 1912, 211; Gardthausen 1913, 119–120.

on the other hand, are made on the basis both of the different angles of slope (a point to which we shall return) and other features of the writing (such as chiaroscural contrasts and the morphology of certain letters). It is important to remember that in Cavallo's view the three types have their roots in the period before the ninth century. Except for the type from Constantinople, for which there are no surviving manuscripts, Cavallo cites manuscripts from the fifth to eighth century which lie at the origins of the Palestinian and southern Italian types.

In 1985 Edoardo Crisci published a book on upright pointed majuscule, tracing its history, the various types of the script and the areas in which it was practised. Before Crisci the prevalent theory saw upright majuscule as a derivation from the more widespread sloping pointed majuscule: the straightening of the axis occurred in about the fifth century under the influence of Biblical majuscule.[303] Crisci, however, traces the origins of upright pointed majuscule back to the severe upright style, which from the fourth century onwards was transformed into a 'a more ordered and homogeneous scheme'[304] until it became a full-flown canonical style in the fifth century. Crisci's reconstruction has led to a canonical status being given both to sloping as well as upright pointed majuscules as distinct styles. This is how we find them categorised in Cavallo and Maehler's survey of Greek bookhands between the fourth and the eighth centuries, published in 1987. This study also attempts to provide a more accurate documentation of the early phase of sloping pointed majuscule and of its development as a canon from the end of the fourth century onwards by distinguishing three graphic types.[305] Another important contribution towards the recognition of sloping pointed majuscule found in Greco-Eastern codices of non-Egyptian origin, was published by Edoardo Crisci in 1996.[306] This study documents a significant aspect of this script: with the canonical majuscules, precisely because they adhere to a strict canon, it is usually hard to identify regional variants, though these must have existed, but sloping pointed majuscule constitutes an exception. Distinct stylistic variations can be found in the manuscripts originating in Nitzana, Mount Sinai, Nubia and Mesopotamia, especially

303 Cavallo 1977a, 103: 'under the influence of scripts with vertical axis such as Biblical majuscule which it accompanied in the form of marginal notes or commentaries, pointed majuscule which started off sloping gradually conformed to the main script, in other words, its axis became more vertical'; see also Cavallo 1967a, 121–122.

304 Crisci 1985, 112.

305 Cavallo / Maehler 1987, 4. A careful analysis of the graphic characteristics of the three identified types, though, finds no uniformity even within each type or correspondence to specific geographic areas.

306 Crisci 1996.

when these are compared with codices probably made in Egypt or Constantinople or southern Italy.[307]

In addition to the studies already mentioned, we should also mention the work of Boris Fonkič and Fedor Borisovič Poljakov on the script of P. Köln inv. 4780 (*Mani-Kodex*; LDAB 5804),[308] of Lidia Perria on the new material from Sinai which has been discovered since 1975,[309] of Edoardo Crisci on book production in the eastern regions of Byzantium,[310] and of Dieter Harlfinger on the regions of Sinai and Syria (Damascus in particular).[311]

Finally the manual of Greek palaeography edited by Edoardo Crisci and Paola Degni should be briefly mentioned.[312] It makes an interesting observation: it shows that sloping pointed majuscule, at least in the earliest phase of its development (but not exclusively so), is less compact and monolithic than other canonical scripts, more open to oscillations of thick and thin strokes and to angularity (with accentuated or more controlled breaks in the written trace), even in the shape of individual letters. The editors see this as an indication that there was less adherence to an ideal model and in consequence more latitude in sloping pointed majuscule for local and even individual interpretations. Such observations form part of a debate which has been taking place in recent years not only on the concept of 'canon'—recently brought into question by Cavallo[313]—but also on the application of an interpretative model based on the principles that scripts develop cyclically in three phases—formation, maturity, decline—according to an evolutionary idea which sees scripts

307 Crisci 1996, 65–66 (region of Mount Sinai and Palestine), 79–84 (Nitzana), 90–91 (Khirbet Mird), 93–95 (Sinai), 101–105 (Constantinople), 121–127 (Nubia), 152–154 (Mesopotamia), 181–182 (conclusions).

308 Fonkič / Poljakov 1990: this study proposes a dating of the *Mani-Codex* to the eighth century, in opposition to the traditional datings to between the fourth and fifth centuries, for which see Henrichs / Koenen 1970, 100 (probably fifth century); Turner 1977, 30, 143 (fourth century or between the fourth and fifth centuries); Klimkeit 1982, 59–60, pl. XXXI (fifth century); Koenen 1983, 93 (late fourth or beginning of fifth century); Koenen / Römer (eds) 1985, VII n. 1 (late fourth or fifth century); Turner 1987, pl. 83 (fourth century or between the fourth and fifth centuries); Koenen / Römer (eds) 1988, XV (late fourth or fifth century). For further bibliographical information and digital facsimile, see http://www.uni-koeln.de/phil-fak/ifa/NRWakademie/papyrologie/Manikodex/mani.html; see also Römer 2009, 633–637, fig. 26.4.

309 Perria 1999; Perria / Luzzi 2005.

310 Crisci 2000.

311 Harlfinger 2010. For the Greek fragments from Damascus, see Radiciotti / D'Ottone 2008, 50–56.

312 Crisci / Degni (eds) 2011, 112–118.

313 See note 7 of the Introduction and the *Glossary of Palaeographical Terms employed in the Text* in this volume.

moving from simplicity towards ever increasing complexity and artifice.[314] Seeing sloping pointed majuscule as a 'weak canon' can lead to a reconsideration of the ways the evolutionary model is used to try to date undated material.

5.2 The characteristics of sloping pointed majuscule in the light of recent studies

On a purely formal level, the main distinguishing characteristics of sloping pointed majuscule can be summarised as follows: the contrast between letters which can be inscribed in a rectangular module with the short side on the base line (*epsilon*, *theta*, *omicron*, *sigma*) and broader letters which can be inscribed in a square module or a rectangular module with the long side on the base line (*delta*, *eta*, *kappa*, *mu*, *nu*, *omicron*, *pi*, *upsilon*, *phi*, *psi*, *omega*); the breaks in the curved strokes of letters *epsilon*, *theta*, *omicron*, *sigma*, *omega*, with resulting angularity in the shape of the letter; a slope of the writing axis to the right; breaking the bilinear system with *rho* and *upsilon* descending below the base line and with *phi* and *psi* breaking both the lines below and above.

However, within this synchronic overview some scholars have tried to identify several guide-elements (both general characteristics and individual distinctive forms) which could be useful in reconstructing the diachronic development of the style and also for a tentative geographical distribution of the manuscript production.

Schubart was the first to attempt these tasks.[315] Although he asserts that there are no individual letters which can be exclusively used for dating,[316] he nevertheless indicates within the 'severe style' several letters which over the course of the centuries have undergone a noteworthy transformation. In particular he singles out *omega*; during the fourth century this letter begins to show, alongside the form in which the curved strokes are flattened on the base line, also angular curves and a more accentuated central stroke, which would subsequently become characteristic of the sloping pointed majuscule style.[317] In addition, Schubart notes the presence in the codex Freer W of the Gospels of small terminal ornamentations in the letters

314 See Orsini 2013, 7–8, and pp. XII–XIII in this volume.
315 Schubart 1925, 139–144.
316 Schubart 1925, 141–142.
317 Schubart 1925, 139–141, figs 96–97.

epsilon, *kappa* and *tau* and the breaking of the bilinear system with the letters *upsilon*, *rho*, *phi* and *psi*.[318]

William Lameere, on the other hand, in describing the script in P. Oxy. XV 1817 (attributed to the sixth century) notes several characteristics, such as the tendency of vertical strokes which descend below the base line to curve to the left; the middle strokes in *mu* merging in a wide curve; *omega* with angular curves.

Cavallo has looked more deeply into the formal features, especially as they develop diachronically.[319] In the initial phase he notes on the one hand the presence, when compared to the 'severe style', of a more angular and regular structure and on the other the different forms for the letters *omega* (which Schubart had already recorded) and *xi*. He identifies the emergence of several infractions of the canon in the decades between the end of the fifth and the beginning of the sixth centuries: *alpha*, written in two rather than three strokes, exemplifies the process. At the end of the sixth century the script begins to show, in addition to several alterations in the structure of single letters, a certain overall artifice, which from the seventh century onwards becomes increasingly 'mannerist',[320] with marked contrasts between thick and thin strokes, a tendency to accentuate breaks in curved strokes, and the use of stylised ornamental apices.

In a later study Cavallo[321] suggests that various geographical areas of production can be identified on the basis of the writing angle. The two areas of which the formal features of manuscript production are described in most detail are Palestine and southern Italy. In Palestinian codices Cavallo notes the tendency of the lower terminations of vertical strokes to bend to the left, *delta* with a thickening only on the left end of the vertical stroke, *rho* with a sinuous dorsal stroke, *upsilon* with curved oblique strokes forming a bowl-like shape, *phi* with a soft flattened ring. In southern Italian production, on the other hand, Cavallo notes a certain roughness of execution, a graphic texture lacking compactness, a limited and unbalanced contrast of thick and thin strokes, and an irregular use of decorative elements.

In the same year Cavallo published an article[322] in which he looks in particular at the sloping pointed majuscule used in Greek manuscripts probably produced in Western Europe between late Antiquity and the early Middle Ages. He identifies a number of common characteristics, such as a loosely flowing rhythm of writing,

318 Schubart 1925, 140, fig. 98.
319 Cavallo 1967a, 117–121.
320 Cavallo 1967a, 119.
321 Cavallo 1977a, 98–103.
322 Cavallo 1977b, 112–115.

plain canonical modules, the absence of marked chiaroscuro or heavy ornaments, and only a slight angle of slope (on average about 101°).[323] In his view this kind of sloping pointed majuscule is 'markedly different'[324] from contemporary codices produced at the same time in centres in Greece and the eastern Mediterranean. Furthermore, he suggests that the minimal slope of the letters in southern Italian manuscripts might be due to the influence of contemporary Latin scripts.[325]

Edoardo Crisci has explored southern Italian production further in his study of the palimpsests of Grottaferrata and he identifies a number of distinctive elements.[326] On a general level, he notes the somewhat careless execution, the soft strokes avoiding excessive angularity, the small module, the chiaroscuro which on occasion is restrained and at others strikingly contrasted, the discreet and sober application or on occasion the accentuation of ornamental additions and the emphasized development of vertical strokes (particularly in *rho*, *phi* and *psi*).

In terms of single letters he notes: *mu* with a central curve and sometimes with 'bridge-like' ligatures, the rather narrow *upsilon* with, at times, a curved left stroke, *omega* written with a soft rounded shape and at times with a central 'bridge-like' ligature.

Crisci also provides a more detailed description of the different manifestations of sloping pointed majuscule found in eastern Greek manuscripts originating outside Egypt.[327] The most strikingly distinctive forms are found in the manuscripts produced in Nitzana (three examples of sloping pointed majuscule) and in some manuscripts found at Qasr Ibrim (again three examples of the script) as well as in manuscripts which can be assigned to the Mesopotamian region.

323 On the measurements of writing angles carried out by Cavallo, see paragraph 5.4 in the present chapter.

324 Cavallo 1977b, 114.

325 Cavallo 1977b, 115: 'the slight slope of the letters leads one to suspect the influence of Latin scripts, which as a rule in the various bookhands from the same period (capitals, uncials, half-uncials) always has a vertical axis'. Latin scripts might have inspired the design of letters such as *alpha* with a protruding loop resembling a tab, or *epsilon* and *sigma* in angular shapes (not dissimilar from capital *E*).

326 Crisci 1990, 67–68, 72–75, 89–91, 101–107, 108–109, 144–147, 159, 160, 205–216, 237–245, 250, 252–254, 255–256; see also his conclusions at 281–284.

327 Crisci 1996, 64–66 (Caesarea in Palestine), 79–84 (Nitzana), 90–91 (Khirbet Mird), 93–95 (Sinai), 101–105 (Constantinople), 121–127 (Nubia), 152–154 (Mesopotamia).

Finally an article by Rodney Ast, Alexander Lifshits and Julia Lougovaya should be mentioned, on the discovery of two bifolia written in sloping pointed majuscule in Moscow university library.[328] Their palaeographical analysis of these fragments—attributed to the sixth or seventh century—draws attention especially to the letter *upsilon*: 'it appears that the thick left-hand and lower strokes and the thin right-hand side of the cup are characteristic of earlier examples of the style; later, the right-hand stroke is always thin all the way down'.[329] The authors date the shift between these two forms of the letter to a period between the sixth and seventh centuries. As a result, they suggest using this element, together with other distinctive features found in the script, for the dating of other manuscripts in sloping pointed majuscule.

Two general conclusions emerge from the results offered so far by the studies on the formal aspects of this script, all very different in terms of the methodologies they use and the number of manuscripts they take into consideration. The first relates to chronology: there are no explicitly dated manuscripts written in sloping pointed majuscule earlier than the ninth century, and even the datable manuscripts, as we shall see, are few and far between and are difficult to analyse. As a result, there is no possibility of constructing, or at least not without severe compromise, a reliable chronological grid, one of the basic tools for establishing a diachronic dating of the various manifestations of a script. The second relates to location: once again, there is no definite evidence for this earlier than the ninth century, although at times the concept of 'origin' tends to be merged with 'provenance', above all for the material that has come to light as the result of archaeological excavation, such as papyri. As a consequence it is extremely difficult to draw up a detailed map of the possible centres of production.

328 Ast / Lifshits / Lougovaya 2016. In the early twentieth century the bifolia were held at the Universitätsbibliothek of Leipzig (Cod. Gr. 7), but were removed to the Naučnaja biblioteka Moskovskogo gosudarstvennogo universiteta imeni M. V. Lomonosova of Moscow (ms. 2Aa 43; inv. *И*:55-11-96) probably after the Second World War. They belong with a fragmentary manuscript (*Gospel of Matthew*; LDAB 2972) together with Birmingham, Cadbury Research Library, Mingana Chr. Arab. 93 (f. 1), Sin. Harris 8 (ff. 4), and Petropol. RNB Gr. 16 (f. 1).

329 Ast / Lifshits / Lougovaya 2016, 145.

5.3 Dated and datable manuscripts

Nonetheless, despite these difficulties, chronology and localisation of origin are problems which cannot be avoided in palaeographical analysis. We therefore need to begin by looking again at the manuscripts which either are dated or to which a date can be assigned.

We know at present of five explicitly dated manuscripts:[330]

1. Sin. gr. 210 (ff. 188) + Sin. NE ΜΓ 12 (ff. 31) + Petropol. BAN RAIK 194 (ff. 4) + Sin. Harris App. 16, 22 (ff. 3) (*Gospel lectionary*)[331] – [861/862 CE] – Anonymous scribe – Origin: [Sinai] – Patron: *Menas* the deacon – Average angle of slope:[332] 116° – Fig. 51.

Fig. 51 and 52: Sin. gr. 210, f. 95r and Petropol. RNB gr. 216, f. 318v.

330 Only essential bibliography will be provided for the manuscripts taken into consideration here; for further bibliographical details, see Orsini 2016.

331 Politis 1980, 10–11; Harlfinger / Reinsch / Sonderkamp (eds) 1983, 13–14, no. 1, pls 1–4; Weitzmann / Galavaris 1990, 17–19, figs 7–12; Nikolopoulos (ed.) 1999, 144, pls 2, 53; Harlfinger 2010, 462 and n. 7, 463, 465, 467, 470.

332 For the use of the angle of slope as one of the parameters of palaeographical analysis of manuscripts written in sloping pointed majuscule, see paragraph 5.4 in the present chapter.

2. Petropol. RNB gr. 216 + Sin. NE MΓ 33 (ff. 13) (Uspenskij Psalter) – 862/863 CE[333] – Scribe: Theodor, deacon of the Church of the Anastasis (in Jerusalem)[334] – Origin: Jerusalem – Patron: Noah, bishop of Tiberias – Average angle of slope: 112.3° – Fig. 52.

3. Vat. gr. 354 (*Four Gospels*)[335] – 949 – Scribe: Michael the monk – Origin: [southern Italy?; mainland Greece?; Syria-Palestine?] – Average angle of slope: 99.5° – Fig. 53.

4. Sin. gr. 213 + Petropol. RNB gr. 283 (f. 1) (*Gospel lectionary*)[336] – 967 CE – Scribe: Eustace presbyter – Origin: [southern Italy?; Sinai-Palestine?] – Average angle of slope: 100° – Fig. 54.

5. Sin. ar. 116 (*Gospel lectionary*)[337] – 995/996 CE – Scribe: John presbyter from Mount Sinai – Origin: Sinai – Average angle of slope: 103° – Fig. 55.

333 Follieri 1974, 145–148: dated to 862/863. According to Morozov 2007, 89–93, the manuscript should instead be dated to the year 878. Nikolopoulos (ed.) 1999, 95, 119–121, 147 and pl. 9, believes that a number of leaves in quires A' and B' (thirteen leaves in total), and the whole of quire IS' in manuscript Sin. NE MΓ 33 originally formed part of the Uspenskij Psalter, whereas all the remaining leaves were part of manuscripts Sin. gr. 33 and Petropol. RNB gr. 262. In addition, according to Fonkič / Poljakov 1990, 23 no. 2 and n. 9, the scribe of the Uspenskij Psalter was also responsible for manuscript Moskva RGB Φ 201(Sobranie rukopisej A.S. Norova) 18, 1 (a fragment of the Greek-Syriac-Arabic Psalter described in Pigulevskja 1954, no. 432). See also Olivier 2011.

334 Vogel / Gardthausen 1909, 136.

335 Mercati 1904, 3–15; Franchi de' Cavalieri / Lietzmann 1929, pl. 13; Grabar 1931, pls XII–XVII; Lefort / Cochez 1932, pl. 78; Weitzmann 1935, 75–76, figs 511–515; Devreesse 1937, 38–39; Hatch 1939, pl. 69; Follieri 1969, 17–19, pls 7–8; Grabar 1972, 48–49 no. 28, figs 166–168, 170; Spatharakis 1981, 11 no. 10, figs 26–27; Weitzmann 1996, 63; *RGK* III, no. 471.

336 Vogel / Gardthausen 1909, 123; Weitzmann 1935, 73, figs 495–496; Grabar 1972, 73 no. 44, figs 321–325; Weitzmann 1973, 10; Spatharakis 1981, 13 no. 18, figs 42–43; Harlfinger / Reinsch / Sonderkamp (eds) 1983, 14–16, pls 5–9; Weitzmann / Galavaris 1990, 35–39, figs 60–82; Perria 1999, 72; Martani 2004, 29, 30, 31–32, 35, 36, 38–39, 42; Weitzmann 1996, 94, figs 695–698; Harlfinger 2010, 465, 467, 470, pl. IV.

337 Harlfinger / Reinsch / Sonderkamp (eds) 1983, 17–18, pls 18–22; Perria 1999, 70.

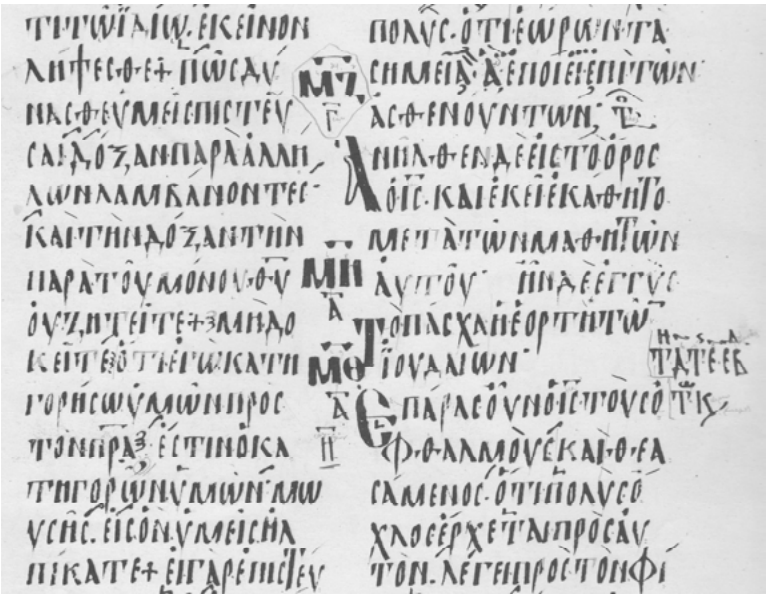

Fig. 53: Vat. gr. 354, f. 191r.

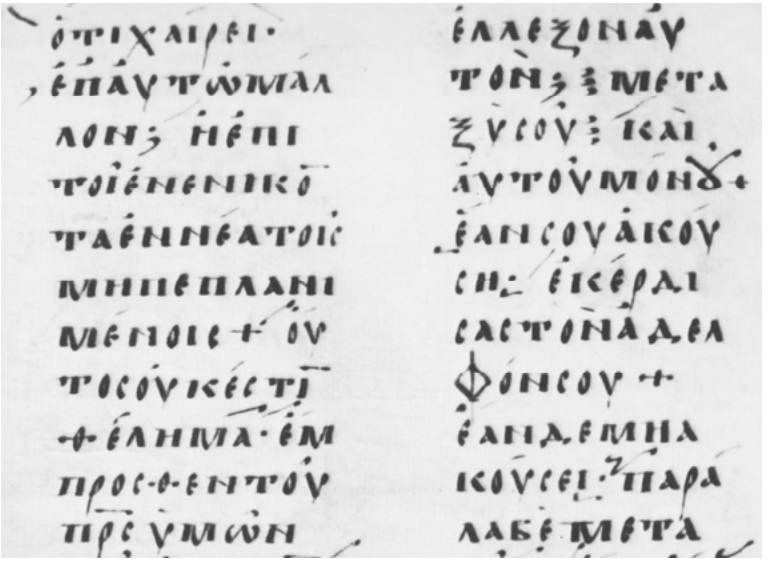

Fig. 54: Sin. gr. 213, f. 76r.

Fig. 55: Sin. ar. 116, f. 203r.

The dating of the first of these manuscripts—which has two subscriptions—to 861/2 is the result of work by Linos Politis.[338] The text of the first subscription (Sin. NE ΜΓ 12, on the verso of a loose leaf),[339] written in Biblical majuscule, is very damaged and only the figure ‚[..]ο' (70), can be read. Politis has completed the date with the figures ‚[ϛτ]ο' (6370 = 861/862), on the basis of analogies with other formulaic subscriptions and on palaeographical similarities (for the text in sloping pointed majuscule) with the Uspenskij Psalter, dated to 862/863 CE. A second subscription (f. 63v),[340] written in sloping pointed majuscule by the same scribe who copied the text, gives the name of the donor of the codex, a certain Menas, deacon and ἰατρός: the scribe, though, remains anonymous. The codex was produced for Sinai though it is not possible to say where.

The manuscripts which are datable on the basis of non-graphic elements can conveniently be divided into two groups, before and after 800 CE. The first group includes several codices which can be dated to before the ninth century. Only five which seem significant are listed here in summary form:

338 Politis 1980, 11.
339 Harlfinger / Reinsch / Sonderkamp (eds) 1983, frontispiece; Nikolopoulos (ed.) 1999, pl. 2.
340 Weitzmann / Galavaris 1990, 18–19 and fig. 12.

Fig. 56: P. Oxy. LXXVI 5074.

1. P. Oxy. LXXVI 5074 (LDAB 140278; Fig. 56): a papyrus fragment containing *Festal Letter 28* by Cyril of Alexandria, written for Easter, 23 March 441.[341] The sloping pointed majuscule (average angle of slope 104.4°) is dated by the editor to between the seventh and eighth centuries.[342] Judging by the text and by the script 441 can be considered if not a *terminus ad quem* a *terminus post quem*; as a result a dating between the middle of the fifth century and the beginning of the sixth century would not be inappropriate for this script, also when we compare it with,

341 Évieux / Burns (eds) 1991, 93. The manuscript is a fragment from a papyrus scroll, which preserves an unidentified text (rotated by 90° clockwise) on the side written across the fibres; the text between the two surviving columns is discontinuous: in column I the text corresponds to *PG* 77, col. 944 *ll.* 32–41 whereas column II corresponds to *PG* 77, coll. 948 l. 54–949 l. 10. The missing portion between the two columns corresponds to 121 lines in Migne's edition of the text. As ten lines of text in the scroll are almost equivalent to ten lines in the edition, the missing portion can be estimated to be the equivalent of about 121 written lines (rather than the 140 proposed by the editor). These lines should therefore have been written in the second column, above the surviving text, resulting in an unorthodox column of [132] lines of text. It is therefore more reasonable to suggest the following explanations: 1. the scroll included an abbreviated version of the text in respect to the medieval tradition; 2. a large gap in the text of the exemplar from which the text was copied in the scroll; 3. the scroll contained a copy of the letter with only excerpts from the original text.

342 The editor (M. Konstantinidou in P. Oxy. LXXVI, 24) suggests a comparison with the hand of P. Berol. inv. 11754 + 21187 [LDAB 2232] (Cavallo / Maehler 1987, pl. 39a; second half of the sixth century).

for example, the script in PSI VIII 977,[343] which can be attributed to the middle of the fifth century.

2. Vindob. Med. gr. 1 (LDAB 10000; Fig. 57–59),[344] the celebrated Vienna Dioscorides, written in Biblical majuscule, probably commissioned by Juliana Anicia and therefore attributed—on the basis of a passage in the chronicle of Theophanes the Confessor[345]—to the beginning of the sixth century (*terminus ante quem* 512/513 CE),[346] though recently this dating has been called into question by Andreas Müller. Gardthausen has already recorded the presence in the margins on leaves 388r–392r (containing the anonymous text *Carmen de viribus herbarum*) of notes in sloping pointed majuscule (average angle of slope 106°).[347] It is certain that 512/513 (if this date is a correct attribution) is a terminus *post quem* for this example of sloping pointed majuscule: in Leslie Brubaker's view this script could be attributed to the eighth century.[348] It is highly probable that the same hand wrote the marginalia on leaves 474v–482r, 484r–485r (containing a commentary on the *Ornithiaka* by Dionysos of Philadelphia) in a pointed sloping majuscule in a smaller module.

3. PSI XIII 1296 (LDAB 2839; Fig. 60)[349]: two parchment palimpsest bifolia containing in the *scriptio inferior* an anti-Manichean Coptic treatise (LDAB 108117)[350] and in the *scriptio superior* the following texts: an overview of the lengths of the days and nights in the Egyptian months (f. α, p. 1), a dialogue between St Basil and St Gregory Nazianzus (f. α, pp. 2–4), a fragment of the Apocalypse of John (f. β, pp. 1–4).

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343 Cavallo / Crisci / Messeri / Pintaudi (eds) 1998, 151–152 no. 70, pl. 56.

344 *Dioscorides* 1906; Buberl 1937, 1–129, pls I–XLIV; Hunger 1969, 37–41; Gerstinger 1965–1970; Spatharakis 1981, 5–6, no. 1, figs 1–6; Mazal 1998–1999. See Brubaker 2002; Gamillscheg 2007; Müller 2012; Bianconi 2015, 791–795.

345 De Boor (ed.) 1883, 157; Mango / Scott 1997, 239.

346 According to Müller 2012, the foundation of the church of the *Theotokos* in the Honoratae neighbourhood of Constantinople—recorded in the chronicle of Theophanes as an act of charitable patronage by Juliana Anicia—cannot be certainly dated to the year 512/513 CE. The verse at the beginning of the Vienna Dioscorides (f. 6v), therefore, which records the gratitude felt by the inhabitants of Honoratae to Juliana Anicia for the construction of the church, constitutes without doubt a significant historical link between the commissioning or composition of the Vienna codex and the date for the foundation of the church given in Theophanes, but is not sufficient to establish an indisputable *terminus ante quem*.

347 Gardthausen 1913, 137–138.

348 Brubaker 2002, 197.

349 Norsa 1939, 36–37, pl. 18b; Naldini 1965, no. 20, pl. XVI, e no. 30, pl. XIX; Cavallo 1967a, 120, pl. 110; Turner 1977, 129, 163; Pintaudi (ed.) 1983, 86 (entry by M. Manfredi); Cavallo / Maehler 1987, pl. 28b; Del Francia Barocas (ed.) 1998, 114, no. 125 (entry by M. Manfredi); Del Corso 2015, 172–178.

350 Simon 1946, 506. The text of the *scriptio inferior* is attributable to the fourth century.

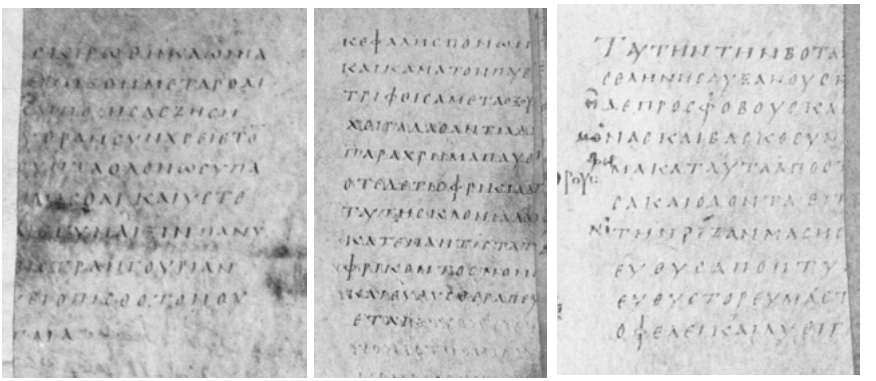

Fig. 57–59: Vindob. Med. gr. 1, ff. 388v, 389r, 390r.

The text on the days and nights in the Egyptian months is written in a documentary hand by a different scribe from the one who copied in sloping pointed majuscule the other texts. This documentary script provides a *terminus ante quem* for the sloping pointed majuscule; it can be compared for example with the script of P. Berol. inv. 21900 (571 CE; divorce agreement; TM 16139);[351] furthermore, Lucio Del Corso has recently proposed a comparison of this script with the one found in P. Bouriant 1 (P. Sorb. inv. 826; LDAB 2744),[352] a papyrus codex containing the *Sententiae* of Diogenes, Menander and Babrius, attributed to the sixth century by Guido Bastianini.[353] If these comparisons hold true, therefore, we can date this particular example of sloping pointed majuscule to around the middle of the sixth century.[354]

351 Cavallo / Maehler 1987, pl. 32b.

352 Del Corso 2015, 175–176; see Gascou 2013, 95. For a complete digital facsimile, see http://www.papyrologie.paris-sorbonne.fr/menu1/collections/pgrec/2Sorb0826.htm.

353 CPF 1992, 89–91, no. 48, 1T: Guido Bastianini has produced an edition of the text on ff. 6r–7r.

354 Del Corso 2015, 177–178, compares this sloping pointed majuscule with the ones found in PSI inv. 1733 (LDAB 2253; attributed to the sixth century) and P. Ness. II 1 (LDAB 4166; attributed to the sixth century).

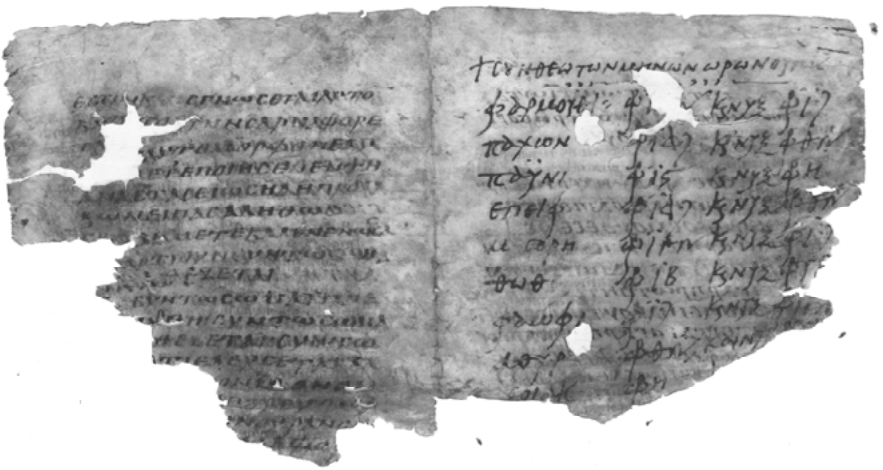

Fig. 60: PSI XIII 1296, f. α.

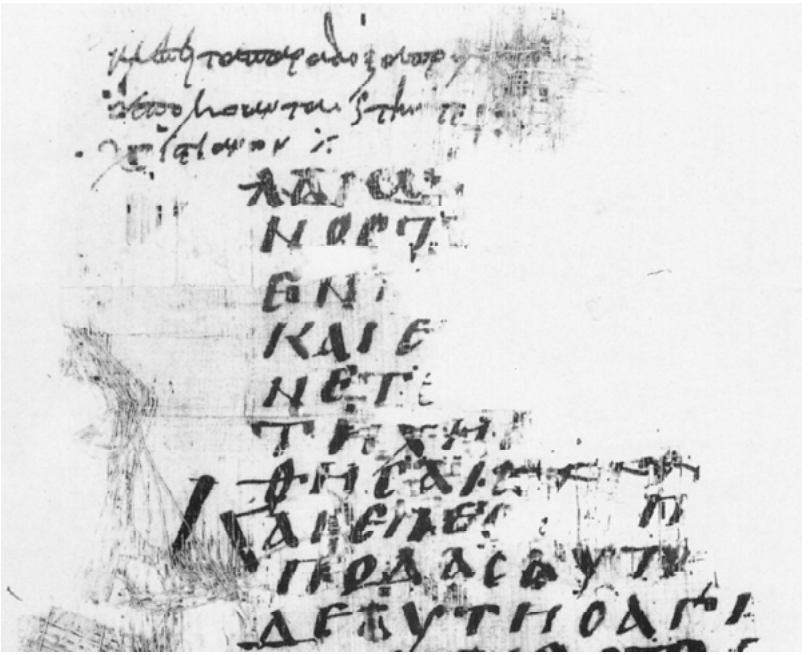

Fig. 61: P. Ness. II 6.

4. P. Ness. II 6 (LDAB 6699; Fig. 61):[355] a fragment of a papyrus codex containing the *Acts of St George*, written in a sloping pointed majuscule (average angle of slope 116.7°), attributed to a period between the end of the seventh and the beginning of the eighth century on the basis of a second hand—considered by the editors to be contemporary with the hand that copied the text—which has added in the upper and lefthand margins corrections in a cursive antique minuscule.

5. Sin. syr. 30, ff. 171–182 (LDAB 117948):[356] the celebrated palimpsest codex *Syrus Sinaiticus*, containing in the *scriptio superior* the lives of various saints, copied at M'arrat Mesrin (Syria) in the year 779; the *scriptio inferior*, on the other hand, contains, taking up most leaves, an ancient Syriac version of the Gospels and some Greek texts on a few other leaves: on ff. 142, 144, 147, 149 some passages from the Gospel according to St John have been identified, written in a Biblical majuscule attributable to the fifth or sixth centuries; on ff. 171-181 (+ binding) another two texts have been identified (the *Epistula magna* by Pseudo-Macarius/Simeon [ff. 171, 172, 176, 177, 181, binding] and the *Sermo asceticus* by Ephrem [ff. 173, 174, 175, 178, 179, 180], written by the same hand in sloping pointed majuscule (average angle of slope 118°), attributed to the sixth century; the year 779 for the *scriptio superior* constitutes an important t*erminus ante quem* for this sloping pointed majuscule, which can therefore be attributed to the seventh rather than the sixth century.

The second group of datable manuscripts is formed of three codices attributable to the ninth century.

1. Paris. gr. 437 (Ps.-Dionysus Areopagite)[357] – [*ante* 827 CE] – Origin: [Constantinople?] – Average angle of slope: 113° – Fig. 62.

355 P. Ness. II, pl. 5; Crisci 1996, pl. 75.

356 Smith Lewis 1894, 43–47; Hjelt (ed.) 1930; Voicu 1984. For the dating of the *scriptio superior* to the year 779, see Brock 2003, 106 and n. 16, 112.

357 Omont 1892, pl. XIV; digital facsimile available at http://gallica.bnf.fr/ark:/12148/btv1b6000953x.r=Grec+437.langFR. See n. 90.

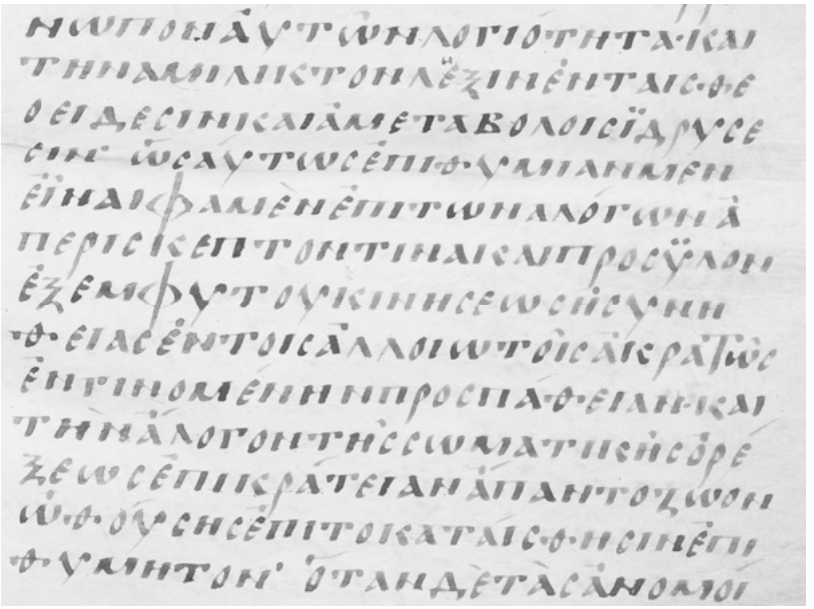

Fig. 62: Paris. gr. 437, f. 7r.

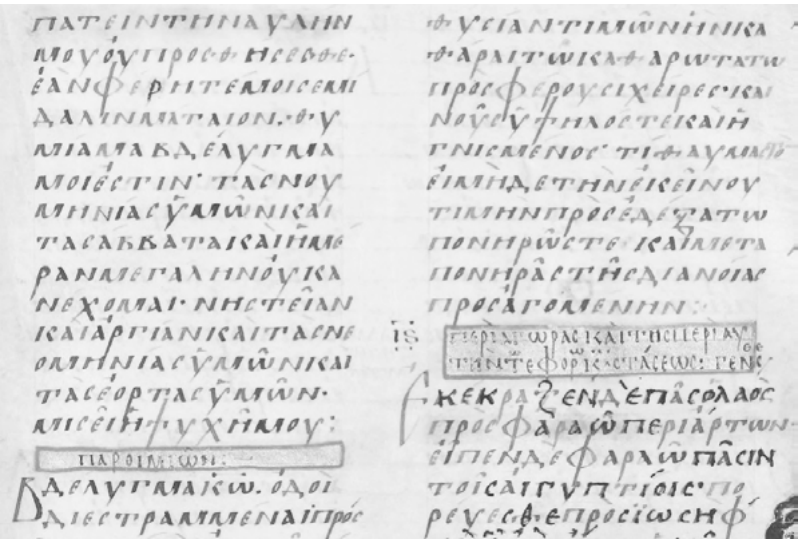

Fig. 63: Paris. gr. 923, f. 14r.

Fig. 64: Paris. gr. 510, f. 21r.

2. Paris. gr. 923 (John Damascene, *Sacra Parallela*)[358] – [*c*.850–900 CE] – Origin: [Rome?; Italy?; Palestine?; Constantinople?] – Average angle of slope: 112° – Fig. 63.

3. Paris. gr. 510 (Gregory Nazianzus, *Orationes*)[359] – [*c*.879–882 CE] – Origin: [Constantinople?] – Average angle of slope: 112° – Fig. 64.

It is highly probable that Paris gr. 437 was the manuscript sent as a gift by the Byzantine emperor Michael II to Louis the Pious on the occasion of an embassy to Compiègne in 827 CE. The principal source of this information is the abbot of

358 Omont 1892, pl. X; Millet 1916, 7, 599; Weitzmann 1935, 80-81, figs 537–545; Jaeger 1947, 101–102; Grabar 1972, 21–24 no. 3, figs 17–22, 24, 26, 28, 30, 32–36; Weitzmann 1979, 20–23; Osborne 1981; Revel-Neher 1992; Bianchini (ed.) 1992, 190–191, no. 127 (entry by J. Durand); Weitzmann 1996, 64–66; Brubaker 1999, 25; Bernabò 2000, 108–109; Evangelatou 2008; D'Agostino 2012, 93; Evans / Ratliff (eds) 2012, 118–120, no. 80 (entry by A. Labatt); D'Agostino 2013, 44, 46–47, 48, 53–54. Digital facsimile available at http://gallica.bnf.fr/ark:/12148/btv1b525013124.r=.langFR. As already pointed out in Grabar 1972, 22–23, and Weitzmann 1979, 4–5, 6–7, ff. 103rv, 134rv, 270rv, 289rv, were copied by a later hand (attributable to the ninth century according to Grabar and to the tenth or eleventh centuries according to Weitzmann).

359 Weitzmann 1935, 2–5; Der Nersessian 1962, 197; Spatharakis 1981, 6–9, no. 4, figs 10–15; Weitzmann 1996, 19–20; Brubaker 1999, 5–7, 236–238, 412–414; D'Agostino 2012, 100; Bianconi 2015, 781, 788, 789, 791. Digital facsimile available at http://gallica.bnf.fr/ark:/12148/btv1b84522082.r=.langFR.

Saint Denis, Hilduin, who in a letter written in 835 and sent to the Holy Roman Emperor Louis the Pious, mentions both the embassy and the gift.[360]

As for Paris gr. 923, according to John Osborne[361] the figure depicted on ff. 317v, 278v, 325r could be identified with Methodius—patriarch of Constantinople from 843 to 847 CE—of whom two other depictions exist in the church of the Hagia Sophia in Constantinople, which can be attributed to the second half of the ninth century; on the basis of this comparison (which also takes into account the formal representation of the patriarch on the images) Osborne proposes dating the manuscript to the second half of the ninth century.

The dating of Paris gr. 510 given here is the one proposed by Leslie Brubaker,[362] based on the initial leaves A–C of the manuscript. These leaves are considered to be part of the original manuscript and not later additions. In particular, the sequence of images found on f. Br would seem to indicate that the manuscript was produced some time between 879 and 882 CE. Furthermore, according to Sirarpie Der Nersessian and Leslie Brubaker, the patriarch Photius may have been behind the planning and creation of this manuscript of Gregory Nazianzus's work.[363]

All these dated and datable examples of sloping pointed majuscule—to which others could be added to extend and deepen the investigation—constitute an initial reference group on the basis of which a diachronic sequence of the graphic forms can be constructed, together with the possible locations where they were produced. Putting the dated manuscripts and the second group of datable ones together, it is clear that they were largely produced in the ninth century and the second half of the tenth century. The locations where they were produced is more problematical: apart from the two manuscripts with definite places of production (Jerusalem and Sinai), the others have been attributed in critical editions of their texts—often on the basis of art-historical evidence—to different geographical areas, such as southern Italy, mainland Greece, the regions of Syria/Palestine and Egypt/Palestine. The few examples in the first group of datable manuscripts, on the other hand, partly indicate four periods: between the second half of the fifth and beginning of the sixth centuries, the middle of the sixth century, the seventh century and the eighth century. As far as place of production

360 *PL* 106, col. 16 B-C; MGH 1899, 330; Dölger / Preiser-Kapeller / Riehle / Müller (eds) 2009, 216, no. 413. On the episode, see Omont 1904; Théry 1932, 1–9, 63–69; Loenertz 1970, 177–180; Lowden 1992, 250–253; Magdalino 2011, 105, 113–114.

361 Osborne 1981.

362 Brubaker 1999, 5–7.

363 Der Nersessian 1962, 227–228; Brubaker 1985; Brubaker 1999, 236–237, 412–414.

is concerned, we know for certain where one of them was produced: the Vienna Dioscorides was copied in Constantinople where it remained until the fifteenth century;[364] as a result the marginal annotations in pointed sloping majuscule attributable to the eighth century can only have been added in Constantinople. In the case of the other manuscripts, on the other hand, we know only where they came from: Egypt (Oxyrhynchus and Antinopolis), Palestine (Nitzana) and Syria (M'arrat Mesrin).

This temporal framework provides a tool with which we can construct wider chronologies and relative datings. We can try it out, by way of experiment, on various undated and undatable manuscripts—for example, two manuscripts, already cited, for which scholars have proposed a wide range of possible datings: the Freer W codex of the Gospels and the *Mani-Kodex*.

In the Freer W codex two hands can be distinguished: the earlier (A) is responsible for almost the entire codex (Sanders 1912, 1–112, 129–372), apart from one quire (Sanders 1912, 113–128), containing the beginning of St John's Gospel (Jh. 1.1–5.11), copied by a later hand (B). The main hand (A; Fig. 65) is characterized by a sober chiaroscuro and light terminal thickenings and cannot be plausibly compared with any of the dated and datable manuscripts examined here:

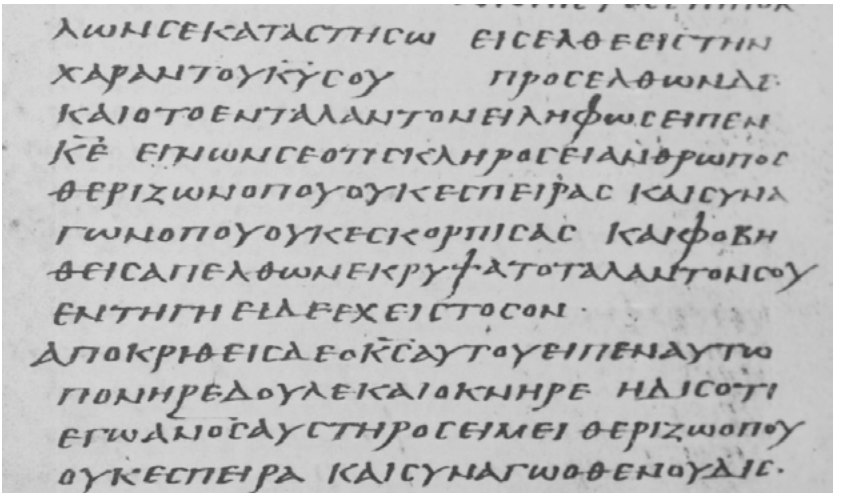

Fig. 65: Washington, Smithsonian Institution, Freer Gallery of Art, MS. 06.274 (Sanders 1912, p. 95).

364 Weitzmann 1935, 34; Weitzmann 1971, 138; van Buren 1973, 68; Brubaker 2002, 206.

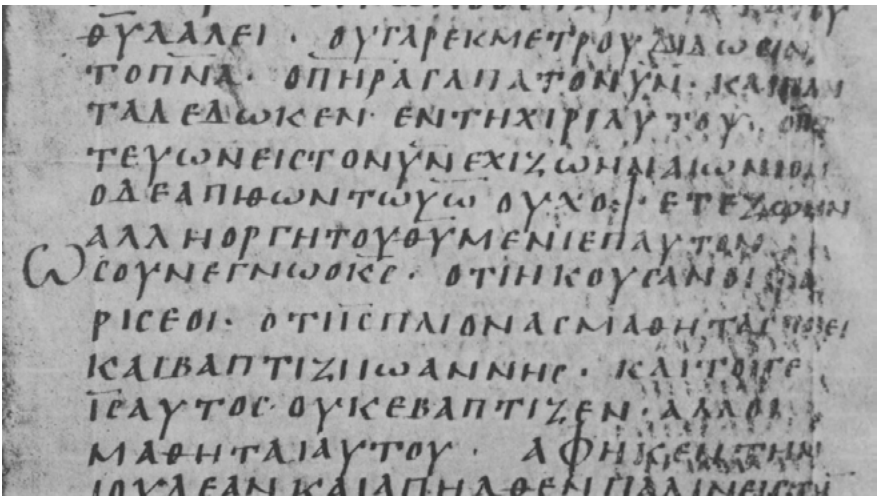

Fig. 66: Washington, Smithsonian Institution, Freer Gallery of Art, MS. 06.274 (Sanders 1912, p. 123).

instead it can plausibly be considered to be earlier than the sixth century: comparisons can be made with the scripts found in PSI I 126 + P. Berol. inv. 13932 (LDAB 2715; first half of fifth century) and P. Vindob. G 2314 (LDAB 94; second half of fifth century). The second hand (B; Fig. 66) displays a marked chiaroscuro and sober terminal thickenings and can be compared with the writing found in PSI XIII 1296, meaning that it can be dated to about the middle (or the second half) of the sixth century.[365]

The *Mani-Kodex* (Fig. 67–68) is a small volume (38×45 mm) and was written by two scribes working—contrary to what has been maintained until now—in different periods:[366] the earlier hand (B) was wholly responsible for the quires II-VII (pp. 25–168) and three bifolia of quire VIII (pp. 169/170–191/192, 171/172–189/190, 177/178–183/184); the later hand (A) was responsible for the entire first quire (pp.

365 Outside the temporal framework proposed here, a convincing comparison can be made between this second hand and scribe C (ff. 26r–33v) of the *Akhmim-Codex* P. Cairo 10759 (LDAB 1088); see cfr. Kraus / Nicklas (eds) 2004, 25–53; van Minnen 2004; Bernhard 2006, with pls 8–16; Foster 2010, 177–205. It is worth recalling that Schmid 2006, has suggested a dating to the late sixth century for hand A in the Freer W codex of the Gospels.

366 For the distinction between the different hands, see Koenen / Römer (eds) 1985, XII–XIII. The original collation was follows: 1^{12} (pp. 1–24), 2^{12} (pp. 25–48), 3^{12} (pp. 49–72), 4^{12} (pp. 73–96), 5^{12} (pp. 97–120), 6^{12} (pp. 121–144), 7^{12} (pp. 145–168), 8^{12} (pp. 169–192).

Fig. 67: P. Köln inv. 4780, pp. 10/15.

1–24) and three bifolia of quire VIII (pp. 173/174–187/188, 175/176–185/186, 179/180–181/182).

Judging from this distribution of the text, it seems probable that hand A intervened later to 'restore' parts at the beginning and end of the codex which had been damaged.

Hand A (Fig. 67) is characterised by a marked chiaroscuro, ornamental serifs, lateral compression of letters (all the letters have a rectangular module, with the short side on the base line). In overall appearance the hand can be compared with the script in Paris. gr. 437 and to the marginal writing in the Vienna Dioscorides and can therefore be dated to some time between the second half of the eighth century and the beginning of the ninth century. Hand B (Fig. 68) is characterised by a marked chiaroscuro, a restrained use of ornamental terminations, and letter modules which are less laterally compressed than those of hand A. Hand B can be compared with PSI XIII 1296 and also with hand B—rather than hand A, as Koenen and Römer have proposed—in the Freer W Gospel codex; therefore it could be dated to the sixth century.

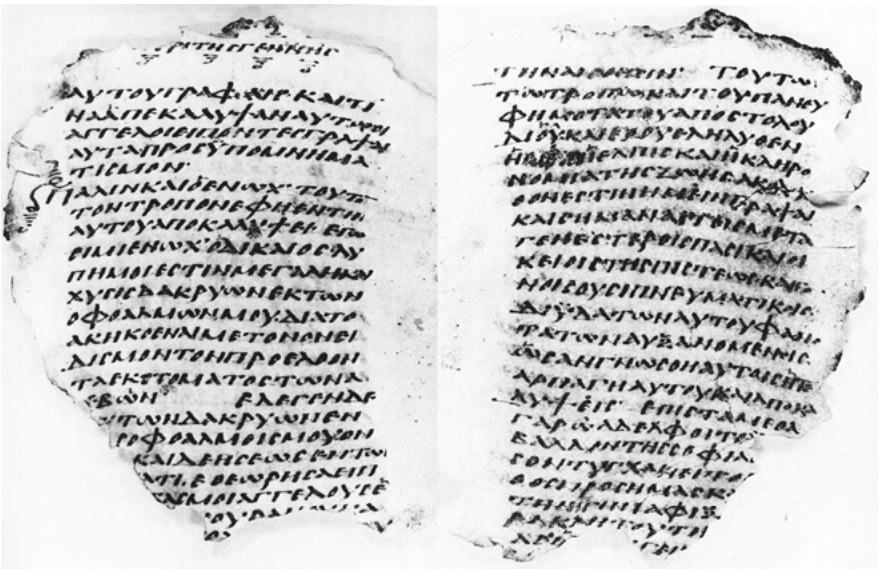

Fig. 68: P. Köln inv. 4780, pp. 58/63.

5.4 The problem of localisation and the angle of the slope

As far as the problem of localisation is concerned, the angle of writing slope merits special attention as a significant factor. By the 'angle of slope' is meant 'the supplementary angle to that formed by the right angle formed by the vertical axis of the letters and the base line'.[367] Angles above 90° mean the writing slopes to the right; below 90° (a rare occurrence)[368] the writing slopes to the left.

367 Crisci / Degni (eds) 2011, 24.

368 An example of pointed majuscule sloping to the left rather than to the right—so far considered an aberrant phenomenon of upright pointed majuscule only—can be found in codex Oxon. Auct. T. inf. II. 2 + Petropol. RNB gr. 33, with average angle of slope 82,8° (with some extreme fluctuation between 78° and 87°); in addition, Petropol. RNB gr. 33, f. 99r, has a subscription containing chronological data (27 November, Thursday, eighth indiction), which in the ninth century correspond to the years 844 and 889 CE and in the tenth century to 934 and 979 CE. See Tischendorf 1860, 53 no. 8; Tischendorf 1861, 5–6, no. IV; Gardthausen 1879, 159; *PS* s. II, I (1884–1894), pl. 7; Thibaut 1913, 37, no. 4, fig. 18; Gardthausen 1913, 150; Weitzmann 1935, 73; Hatch 1939, pl. 61; Cavallo 1967, 122; Hutter 1982, 27–28, no. 16, fig. 71, 73; Crisci 1985, 137–138, pl. 15b; Crisci 1996, 93 n. 348.

As has already been recalled, this parameter was used by Cavallo in 1977—working in the context of contemporary palaeographical research in Latin scripts—to put forward a geographical framework for manuscripts written in sloping pointed majuscule.[369] The basic assumption is that different angles of slope correspond to different geographical areas of production. The measurements used as a guide were taken from three manuscripts: Paris. gr. 510 (*c*.879–882 CE, Constantinople?); the Uspenskij Psalter, Petropol. RNB gr. 216 + Sin. NE ΜΓ 33 (862/863 CE; Jerusalem); the Crypt. B.α.LV (a palimpsest Homiliary attributed by Cavallo to the middle of the eighth century and to southern Italy).[370] On the method used for identification and the analysis of the data Cavallo tells us that, in line with the general approach of his research as well as with that of Leon Gilissen in studying Latin codices,[371] only the 'average values' of the angle of slope have been recorded (Table 30). Commenting on the data Cavallo writes that 'it is immediately evident that the Hagiopolite type is strongly sloping, the Italian-Greek type only slightly so, while the Constantinopolitan type constitutes the midway point of balance between the two extremes, an indication of the formal perfection which a high-grade scriptorium could achieve and also shown in the minimal oscillation in the axis from letter to letter in the codex Paris gr. 510'.[372]

On the basis of these findings Cavallo then proceeds to distinguish, also calling in aid certain formal characteristics of the script (graphic uniformity, chiaroscural contrasts, terminal thickenings, the structure and forms of individual letters), the geographical origins of a series of manuscripts. However, in certain cases he has to admit that the formal features of a script are impossible to reconcile with the criterion of the angle of slope: for example, the codices Vat. gr. 749 (*Catena on Job*),[373] Paris. gr. 923, Ambr. E. 49-50 inf. (Gregory Nazianzus, *Orationes*),[374] with shared artistic affinities, show a common angle of slope of *c*.110°, which would suggest a

369 Cavallo 1977a, 99–102. It is worth pointing out that Cavallo 1977b, 112–114, writes that he has measured the slope of the letters according to the 'method' proposed by Gilissen 1973, 18–19, even though Gilissen in the cited passage does not provide additional information on how to measure the slope of the letters or analyse the resulting data. On Gilissen and the writing angle, see Pratesi 1977, 205–206; Palma 1978, 272.

370 Crisci 1990, 220–231, 283, pls 103–105: he is doubtful about the attribution of the palimpsest to southern Italy.

371 Cavallo 1977a, 98 n. 6, 99.

372 Cavallo 1977a, 99; it is worth noting that Cavallo 1977b, 115, considers the slight slope of the letter axis in southern Italian manuscripts to show the possible influence of contemporary Latin scripts (capital, uncial and half-uncial).

373 Grabar 1972, 16–20 no. 1, figs 1–8.

374 Grabar 1972, 20–21 no. 2, figs 11–16; D'Agostino 2012.

southern Italian origin, although the graphic forms do not show any affinity with the sloping pointed majuscule typical of this area; similarly in the case of Vat. gr. 354 (*Four Gospels*), attributed to different areas on account of its ornamentation, where the angle of slope (98° according to Cavallo) would suggest a southern Italian writing centre while the shape of the letters is unlike anything found in Western production.

It is Crisci who has defined the value and the importance of the angle of slope in the analysis of sloping pointed majuscule.[375] In his view, it is also useful to take into account, together with the average angle of slope, the minimum and maximum oscillations in the inclination of the axis.

Crisci is also responsible for two pieces of research—on the palimpsests of Grottaferrata and on the Greek-Eastern manuscripts of non-Egyptian origin[376]—in which the parameter of the angle of slope is identified and used alongside other features of the script. In the case of the Grottaferrata palimpsests—to judge from which pointed sloping majuscule would appear to be the most widespread form of script in southern Italy before the advent of minuscule—the overall analysis of the manuscripts would confirm the trend identified by Cavallo: in approximately fifteen palimpsests, in which the *scriptio inferior* can be traced to southern Italy, the average values of the angle of slope are concentrated between 97° and 115°, with extreme oscillations from 90° to 122°. As far as the Greek-Eastern manuscripts of non-Egyptian origin are concerned, on the one hand the marked angle of slope (oscillations between 110° and 125°) found in the Syrian and Palestinian area is confirmed, while on the other hand, in the case of a provincial area such as Nubia the inclination—measured in five manuscripts—is scarcely present and irregular (as for the provincial area of southern Italy): the average goes from 100.5° to 105.3°, while the extreme oscillations range from 94° to 112°.

No work has been done since Cavallo and Crisci which specifically focuses on the reliability of the angle of slope as a way of identifying the geographical origins of manuscripts written in pointed sloping majuscule. I have therefore carried out a small experiment: in a sample of fifty-three manuscripts in pointed sloping majuscule (produced between the fifth and tenth centuries), ten 'chance'[377] measurements have

375 Crisci 1988, 101 n. 19; see also Crisci 1996, 80 n. 281.

376 Crisci 1990; Crisci 1996.

377 By 'chance' measurements is meant measurements which are made—either directly from manuscripts or from reproductions—without taking into account single letters (which present vertical strokes sloping to the right), the position of the leaves in the codex, or of the portion of the page, or of the column.

been taken of the inclination of the axis for each manuscript and the average has then been calculated (Table 31).

In the analysis of the results the first significant finding relates to the three manuscripts which Cavallo took as a model to distinguish and define geographical areas. The average value of the slope resulting from these findings is different from that calculated by Cavallo (Table 32). As an absolute value, the differences between the average values obtained using the two systems are not great, at least as far as the Syrian-Palestinian and Italian-Greek types are concerned. The difference, however, is notable for the measurements for the Constantinopolitan type, which, with the application of the new method, shows an average value for the angle of slope which is practically identical to the Sinai-Palestinian type, and therefore of no value as a discriminating factor. If in addition to the average value one takes into consideration, following Crisci, the maximum and minimum degrees of slope, we find that in Paris. gr. 510 they are equivalent to 108°–116° (a difference of just 8°), in the Uspenskij Psalter they are 106°–119° (with a difference of 13°). As a result the average values of the angles of slope in these two manuscripts are fairly uniform whereas in terms of extreme values they differ. This finding is enough to show that, in the absence of other criteria, the angle of slope is not a reliable criterion for the attribution of geographical origins to a manuscript written in pointed sloping majuscule.

There are also manuscripts—in addition to those already indicated by Cavallo and mentioned above—for which the parameter of the angle of slope cannot be reconciled with historical data which indicate that the manuscript was produced in a certain area. For example, using Cavallo's average values with a certain flexibility and merely as a guide, the codices Sin. NE ΜΓ 51 (98.8°),[378] Sin. ar. 116° (103.1°), Freer W of the Gospels (hand B, 105.9°),[379] and the marginal notes in the Vienna Dioscorides (106.7°), all with values below 108°, should, according to Cavallo's scheme, come from southern Italy; or the codices Escorial. Φ III 20 (110.4°),[380] Sin. NE ΜΓ 46 (110.9°),[381] Sin. gr. 491 (112.3°),[382] Sin. NE ΜΓ 78 (112,8°),[383] all with values between 108° and 114°, should come from Constantinople.

378 Nikolopoulos (ed.) 1999, 150, pl. 73; Géhin / Frøyshov 2000, 170 n. 14.

379 Hand B copied the quaternion that includes the beginning of the Gospel of John (Sanders 1912, 113–128); for the dating of this hand, see in particular Sanders 1918, 8–9 (end of the fourth century); Clark 1937, 202 (eighth century); Kenyon 1937, 101 (seventh century); Schmid 2006, 230–236.

380 Graux / Martin 1891, pl. I, 3–4; Jaeger 1947, 97–100; Lucà 2007, 56–57 and pl. I.

381 Nikolopoulos (ed.) 1999, 149, pl. 70; Géhin / Frøyshov 2000, 174.

382 Crisci 1996, 91, 94, pl. 86; Harlfinger 2010, pl. 15a.

383 Nikolopoulos (ed.) 1999, 154, pl. 92; Géhin / Frøyshov 2000, 174.

As part of this experiment, the behaviour of all those letters with a vertical axis sloping to the right (*beta, gamma, eta, iota, kappa, mu, nu, pi, rho, tau, phi, psi*) was examined in three manuscripts; for each letter ten measurements of the slope were taken (in other words, a total of 120 measurements for each manuscript). The three manuscripts were: Vat. gr. 2144 (beginning of ninth century, *Gospel lectionary*), attributed to both southern Italy and Constantinople,[384] Vat. gr. 428 (ninth century, works by Basil of Caesarea), attributed to Constantinople,[385] and Vat. gr. 699 (ninth century, Cosmas Indicopleustes, *Topographia christiana*), attributed to both southern Italy and Constantinople[386] (Table 33). These findings principally show that the difference between the average calculated with this method and calculated with the method of taking ten measurements for each manuscript is slight, varying between 0.8° and 2.2°. If, on the other hand, the extreme degrees of slope are taken into account (Table 34), the difference between the two methods becomes more significant, from 7° to 9°.

Nonetheless, according to these findings, and applying Cavallo's average values, Vat. gr. 428 and Vat. gr. 699 should be ascribed to Constantinople, while Vat. gr. 2144 could have been produced either in southern Italy or Constantinople; in short, in the case of these manuscripts the angle of slope either reinforces hypothetical attributions based on other criteria (including the formal features studied by palaeographical analysis) or leaves us in uncertainty.

Finally, in the evaluation of single letters it emerges that the extreme degrees of slope found within each manuscript apply at varying times to different letters (Table 35). In summary, it is clear that no rules or specific patterns can be extracted from the degree of slope of individual letters. It is therefore the case that the inclination in the vertical axis of sloping pointed majuscule, despite being one of the most distinctive stylistic features of the script, does not constitute a stable structural parameter. For this reason, in the absence of specific formal features or non-graphic elements of evidence, it does not provide a reliable criterion for geographical attribution.

384 Bonicatti 1959a, 321–322, pl. XIV; Jourdan 1969; Engberg 1999, 42; Canart 2000, 88.

385 Gribomont 1953, 14–15, 332; Rudberg 1953, 147, 204; Devreesse 1965, 14, 62, 86, 125, 174, 182, 191, 254, 273, 400; Leroy 1974b, 73; Gribomont 1979, 257, 258; Fedwick (ed.) 1993, 583 (Sigla Ap1); Fedwick (ed.) 1997, 99–100 (Sigla i300).

386 Stornajolo 1908; Weitzmann 1935, 4–5; Wolska-Conus (ed.) 1968, 45–47; Leroy 1974b, 73–78; Leroy 1978, 58–59; Weitzmann 1996, 20; Brubaker 1999, 25–26, 113; Brubaker 2000, 526 n. 57; Cantone 2001; Cantone 2006; Kominko 2013, 227–230.

5.5 Tables

Manuscripts	Average degree of slope
Sinai-Palestinian Type (Uspenskij Psalter)	115°
Constantinopolitan Type (Paris. gr. 510)	108°
Southern Italian Type (Crypt. B.α.LV)	101°

Tab. 30: Angle of slope measured in three manuscripts in Cavallo 1977a.

Angle of slope	Number of manuscripts
97°–100°	7
101°–105°	9
106°–110°	12
111°–115°	16
116°–120°	6
121°–125°	3

Tab. 31: Angle of slope measured in 53 manuscripts (average of ten measurements per manuscript).

Manuscripts	Cavallo 1977a average degree of slope	10 measures average degree of slope	Difference
Sinai-Palestinian Type (Uspenskij Psalter)	115°	112,3°	2,7°
Constantinopolitan Type (Paris. gr. 510)	108°	112,1°	4,1°
Southern Italian Type (Crypt. B.α.LV)[387]	101°	98,7°	2,3°

Tab. 32: Angle of slope measured in the three manuscripts in Tab. 30 (average of ten measurements per manuscript).

387 Crisci 1990, 229: 'marked irregularity in the angle of slope, reaching 104°/105° at times, or at others reduced to 90°, with a determining effect of the verticalisation of the axis'; these findings are confirmed by the ten measurements taken from this hand by the writer, which show maximum oscillations between 90° and 106°.

	Average over 10 measurements	Average over 120 measurements	Difference
Vat. gr. 428	111,2°	113°	1,8°
Vat. gr. 699	115,5°	114,7°	0,8°
Vat. gr. 2144	107,5°	105,3°	2,2°

Tab. 33: Angle of slope measured in three manuscripts.

	Maximum oscillations (10 measurements)	Maximum oscillations (120 measurements)	Difference
Vat. gr. 428	105°–121°	102°–120°	-3° / -1°
Vat. gr. 699	111°–120°	102°–124°	-9° / +4°
Vat. gr. 2144	100°–116°	95°–123°	-5° / +7

Tab. 34: Angle of slope: maximum oscillations according to the two-measurement methods.

	Average slope	Letters with maximum angle of slope	Letters with minimum angle of slope
Vat. gr. 428	113°	*Π* (120°)	*K* (102°)
Vat. gr. 699	114,7°	*H* (124°)	*Ψ* (102°)
Vat. gr. 2144	105,3°	*P* (123°)	*B, Ψ* (95°)

Tab. 35: Maximum degree of the angle of slope.[388]

388 Note that for Vat. gr. 428 and Vat. gr. 699 in Table 35, measurements relating to the letter *mu* (measuring 118.6° in the first, and 119.5° in the second), have not been taken into consideration as their side strokes are curved slightly outwards.

6 Liturgical Majuscule

6.1 Previous studies

'Liturgical majuscule' is a Greek script used in Byzantine manuscript production between the ninth and eleventh centuries to copy (almost exclusively) Gospel lectionaries. Little scholarly attention has been paid to the emergence of this majuscule, together with its graphical characteristics and historical context largely because it is difficult to trace its history. Two fundamental elements are missing: 1. the existence of manuscripts with explicit dates and places of origin; 2. stable and long-lasting practices in forming and writing individual letters. The absence of these elements makes it especially difficult to construct a paradigm on which a chronological sequence for the use of the script can be based.

As a result it is not possible to apply the classic interpretative model used for the canonical majuscules to liturgical majuscule; we are faced by a constellation of graphic features which have little homogeneity or structural and stylistic stability and for which there are the chronological and geographical points of reference are few or inadequate. And even if we possessed a series of dated manuscripts, it has to be admitted that the variability and instability of the main elements of the script would make it in any case extremely difficult to establish a certain chronological development for the script.

Precisely because of this it is not possible to define liturgical majuscule as a graphic 'style' and even less so as a canonical or normative script. It is rather a 'graphic mode'; in other words, the recognition of particular aesthetic models, at a certain point in time and across a certain cultural area, which constitute, for those who adopt these models, an element both of internal cohesion and external identification.

The first to dedicate a detailed analysis to *liturgische Unciale*, after Bernard de Montfaucon's brief reference to it,[389] was Viktor Gardthausen.[390] In his view it was a *Prunkschrift* or *Zierschrift*, a tenth-century revival of antique forms (the round designs and square modules which had been used before the eighth century), at a time when pointed designs and rectangular modules predominated. Gardthausen also noted that the script was exclusively used for liturgical manuscripts—which justifies the name he gave it—as well as the absence of dated manuscripts.

389 Montfaucon 1708, 228–229, describes the hand of Paris. gr. 278 as follows: 'character uncialis partim oblungus, partim rotundus, in quibusdam literis; in aliis vero quadrus'.

390 Gardthausen 1879, 160–163; this portion of his text remained virtually unchanged, with the exception of a few small additions, in Gardthausen 1913, 152–157.

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The theory that liturgical majuscule represents a revival of earlier forms is found again both in the collection of facsimiles of Greek manuscripts in Spanish libraries, edited by Charles Graux and Albert Martin and published in 1891[391] and in Maurizio Bonicatti's detailed codicological and palaeographical analysis of Vat. gr. 1522 in 1959.[392]

Finally we should mention a study by Guglielmo Cavallo from 1977, which was for a long time the most useful contribution to our knowledge of liturgical majuscule.[393] Cavallo regards the script as 'a compromise between Biblical majuscule and upright pointed majuscule',[394] in which 'the letters *epsilon, theta, omicron, sigma* are taken from Biblical majuscule (as they can be inscribed within a square module) as is *omega* with its wide flattened curves; while all the other letters are taken on the whole from upright pointed majuscule (using, therefore, an oblong module)'.[395] For Cavallo, the script originates in the tenth century and was almost exclusively practised in Constantinople.

Other new aspects of Cavallo's approach, in respect to previous studies, are the following:

1. the proposal—in the absence of dated or datable manuscripts—to base a chronological sequence for the existing manuscripts on the 'increasing development of the monumental aspects and decorative flourishes in the script';[396]

2. the recognition that the script has a purely symbolic and figural use, employed as it was almost exclusively in the production of Gospel lectionaries;

3. the possible attribution of manuscripts in which the decorative elements are only generically or crudely executed to peripheral areas of production.

Apart from these studies, no work has been done specifically on liturgical majuscule before the present writer's own researches. The interpretative and chronological framework used by modern palaeographers remains the one put forward by Cavallo in 1977.[397]

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391 Graux / Martin 1891, II, 6.

392 Bonicatti 1959b, distinguishes three hands in Vat. gr. 1522 (A, ff. 2r–3v, 197rv [ninth century]; B, ff. 5r–92r, 94r–107v, 109r–126v, 128r–196v [thirteenth century]; illuminator, ff. 1v, 4v, 93v, 108v, 127v [ninth century]).

393 Cavallo 1977a, 107–109, pls 40–49. Cavallo 1967a, 117–124, should also be mentioned for the sake of completeness.

394 Cavallo 1977a, 107.

395 Cavallo 1977a, 107–108.

396 Cavallo 1977a, 108.

397 The recent description of this script in Crisci / Degni (eds) 2011, 123–126, merits a separate discussion. The manual incorporates proposals I made in earlier related studies.

The contributions cited hitherto deal with three types of problems: genetic, morphological and chronological. As far as the formation of the script is concerned, scholars are in general agreement with each other (with, as one would expect, some differences of emphasis). Several—Gardthausen, Graux and Martin, Bonicatti—see liturgical manuscript as a harking back to manuscript production of older scripts using rounded forms and a square module in a contemporary context which was dominated by pointed forms and rectangular modules; other scholars—Elpidio Mioni[398] but above all Cavallo—believe that it can more accurately be said to represent a compromise (again only in the context of manuscript book production) between two normative scripts still in use at the time, Biblical majuscule (in its late phase) and upright pointed majuscule. In short, all these scholars have seen liturgical majuscule as the product of a syncretic process reviving earlier forms, and developed entirely in the context of manuscript book production. Thus liturgical majuscule takes its place—an exclusive one—in the context of the other canonical majuscules, drawing solely on a repertoire of forms (square, rectangular, rounded, angular) which had been codified in the graphic paradigms of Biblical majuscule and upright pointed majuscule. According to this approach, in liturgical majuscule 'nothing is formed but everything pre-exists'.

The morphological aspect has been looked at in detail only by Gardthausen; other scholars limit themselves to indicating, more or less in unanimity, certain general characteristics of the script. It is clear that, while single letters have been identified and described accurately, the structural dimension of the script has not been analysed. The impression one gets from reading through the bibliography on liturgical majuscule is that it had a unique uniform graphic expression. In reality, it had several expressions, as can be seen even we take into consideration only the structural elements which are important for palaeograhical analysis, such as the module and its degree of homogeneity (the more or less consistent use of square and rectangular modules together), the design and the rounded stylisation of the forms, the constitutive function (in the sense that it is a determining the structure) and the level of complexity of the ornamentation. In connection with the ornamentation, Gardthausen (and following him only Cavallo) pointed out how the ornamentation and decoration should not be considered a mere accessory (for the complementary or auxiliary purpose of beautifying the script) but an integral structural element of a whole series of letters used in liturgical majuscule. Other scholars have almost completely ignored this aspect and taken the decorative, ornamental and metagraphic elements found in liturgical majuscule to be common to the canons of late majuscule scripts. The undervaluing of this aspect has long impeded our

398 Mioni 1973, 58.

understanding of liturgical majuscule as a graphic phenomenon, which has been seen genetically as a 'bookhand', a view which sees it solely as the hybrid result of two existing normative scripts.

The problem of how liturgical majuscule emerged and developed is one on which scholars have been most divided in their opinions. Bernard de Montfaucon proposed the eighth century, Maurizio Bonicatti between the ninth and tenth centuries, Charles Graux and Albert Martin ninth to tenth centuries, Robert Devreesse ninth to twelfth, Guglielmo Cavallo tenth to eleventh, Viktor Gardthausen eleventh to twelfth. In fact, the only two scholars who, in the absence of dated manuscripts, propose criteria for dating are Gardthausen and Cavallo. Gardthausen used the non-graphic criterion of the ornamental motif of the πύλη while Cavallo applied the gradual and increasing development of the monumental and decorative aspects of the script as an interpretative model. Yet, on further examination, as we shall see, neither method is effective for establishing decisively a relative chronological sequence for this majuscule.

In contrast to the aspects of the script just discussed, very little or no attention has been paid to the historical and cultural context in which liturgical majuscule was developed and used. At the root of such a visually powerful and monumental graphic type, so rich in ornamental features, lies a particular ideology of writing as well as a symbolic aesthetic elaborated at a specific historical juncture. Without the theoretical debates which raged during the Iconoclast controversy on the relationship of writing to sacred images, this figural attitude to script, the 'iconisation' so to speak of graphic signs, would never have emerged as part of the production of sacred and liturgical texts. For this reason it is not possible to interpret the phenomenon of liturgical majuscule without taking into account the specific historical and cultural context in which it was formed.

6.2 Formation and development of liturgical majuscule

6.2.1 The hypothesis of the emergence of liturgical majuscule as a bookhand

The first question to which an answer must be sought is how liturgical majuscule came into being. If we accept the hypothesis that the origins of liturgical majuscule are to be seen as a deliberate fusion of Biblical majuscule and upright pointed majuscule, then, as evidence of such a process, there should be manuscripts in which the two normative scripts show differing degrees of interaction and reciprocal integration. It is therefore helpful to tackle the question head on by investigating those manuscripts which display a formal and structural combination of Biblical majuscule and upright pointed majuscule.

From the sixth century onwards, in those manuscripts written in Biblical majuscule (excluding therefore those written in display scripts), there begin to appear at the end of the last line in a column of text single pointed letters which serve the sole purpose of justifying the outer margin.[399] Up until the fifth century, the technique of so-called 'diminuendo' has been used for this purpose, in other words the progressive reduction in the module without changing the form of the letters,[400] and into the sixth century manuscripts exist which predominantly use this technique.[401] However, in Vat. gr. 1288 (Dion Cassius; end of fifth century)[402] and Vindob. Theol. gr. 31 (*Genesis*; sixth century)[403] the use of pointed letters to mark the end of the line begins to appear more frequently, while from the seventh century onwards (see for example Paris. Coislin 1 (*Octateuch*; seventh century)[404] it becomes an increasingly consistent feature, continuing until the ninth/tenth centuries (compare, among others, Basil. A N III 12 [*Gospels*; eighth or ninth century][405] and Marc. gr. I 8 [*Gospels*; ninth/tenth centuries]).[406] Thus it is possible to

399 Maniaci 1996, 154.

400 Maniaci 1996, 324.

401 See for examples Paris. Suppl. gr. 1286 (Cavallo 1967a, pl. 89; D'Aiuto / Morello / Piazzoni (eds) 2000, 125–129, no. 4 [entry by P. Degni], figs at pages 126–127, 129), and *Codex Purpureus Rossanensis* (Cavallo 1967a, pl. 90; *Rossanensis* 1987).

402 Franchi de' Cavalieri 1908; Cavallo 1967a, pl. 67.

403 Gerstinger 1931; Cavallo 1967a, pls 86–87.

404 Omont 1892, pl. VI; Devreesse 1954, pl. XII; Cavallo 1967a, pl. 96.

405 Cavallo 1967a, pl. 97; Cataldi Palau 2004, pls 1–10 (for this manuscript she proposes a dating to the ninth century rather than the eighth century, and a place of production in northern Italy, possibly Ravenna).

406 Cavallo 1977a, pl. 33; Hatch 1939, pl. LXII; Gentile 1998, 137. Some letters in this manuscript show the direct influence of liturgical majuscule (ff. 13r–15v in particular): see, for instance, the

state that, from the sixth century onwards, in texts written in Biblical majuscule single letters from upright pointed majuscule are inserted with the sole function of justifying the outer margin of the column of script. No manuscripts have been found, on the other hand, in which these letters are inserted into the Biblical majuscule as an organic and structural part of it.

As for manuscripts written in upright pointed majuscule, Edoardo Crisci has recorded approximately forty manuscripts in which both pointed and rounded letters are used together.[407] In connection with one of the two dated manuscripts in upright pointed majuscule, Lond. BL Harley 5598 (*Gospel lectionary*; 995 CE)[408] Crisci notes the 'influence of liturgical majuscule' on upright pointed majuscule,[409] though he rejects the possibility (advanced by Gardthausen) that 'a gradual transition can be traced from the former [upright pointed majuscule] to the latter [liturgical majuscule]'.[410] The insertion of rounded letters in the text written in upright pointed majuscule is found in several manuscripts, 'in which', as Crisci writes, 'it is not possible to discover those highly artificial graphic and decorative features, used as individual signs in their own right, which are typical of liturgical majuscule'.[411]

In some of these manuscripts, it is indeed the case that the introduction of a letter with a square module and rounded design serves the sole purpose of justifying the outer margin of a column of script, since they are found almost invariably at line-endings. In others, however, they appear in the body of the text as entire lines or pages, which do not correspond to specific or complete parts of a text. In these cases, it must be pointed out, the use of these letters is entirely decorative, in accordance with the taste for such work in liturgical texts, rather than being another kind of Biblical majuscule. The Gospel lectionary Laur. Plut. 6.31 attributable to the end of the tenth century is a case in point.[412] It is written in upright pointed majuscule but, in certain parts of the text, either short passages of one to three lines in the lower part of a column or entire pages, the same scribe uses rounded and more elaborately decorated letters.[413] Another manuscript in

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small oblique stroke intersecting the horizontal stroke in *epsilon* and *theta*, or the small horizontal stroke intersecting the central vertical stroke in *omega*.

407 Crisci 1985; for a detailed list of these manuscripts, see Orsini 2013, 30 n. 8.

408 Cavallo 1977a, pl. 18; RGK I, no. 230, pl. 230; Crisci 1985, pl. 6 b.

409 Crisci 1985, p. 126. An aspect already recorded by Cavallo 1977a, 104.

410 Serventi 2015, where the script of the Harleian codex is called 'liturgical majuscule'.

411 Crisci 1985, 128 n. 75.

412 Weitzmann 1935, 71, pl. 482; Cavallo 1977a, pl. 27; Crisci 1985, pl. 11 b.

413 Liturgical majuscule was used to copy the text on following leaves: 17r A (last three lines), 22r B (last two lines), 23r A and B (last line in both columns), 25r B (last line), 35r B (last three lines), 41r A (last line), 47v A and B (6/7 last lines in both columns), 61v A (last line), 77v A and

which we find the same phenomenon, though less pronounced, is the lectionary Marc. gr. I 45 (927), attributable to the end of the tenth century, written in upright pointed majuscule: again only a few lines are written in a script which clearly takes as its model liturgical majuscule.[414]

What has been said so far on the relations and the differing degrees of combination of Biblical majuscule and upright pointed majuscule shows that:

1. In our present state of knowledge there are no manuscripts which document a progressive fusion of the two canonical scripts in such a way that they would demonstrate the gradual, linear and continuous formation of liturgical majuscule. Furthermore, the approximately forty manuscripts written in upright pointed majuscule cited by Crisci, in so far as they all date from the tenth century (i.e. at a time when the various manuscripts which display the features of liturgical majuscule are recorded) cannot form part of any conjectural evolution of liturgical majuscule.

2. Upright pointed majuscule provided a basic structure for liturgical majuscule, whereas Biblical majuscule played a far less significant role. In the light of the material we have studied here, rather than a synthesis of the two scripts, it would be more correct to speak of a grafting of individual elements of Biblical majuscule onto upright pointed majuscule, although it would perhaps more accurate to say that, rather than individual elements in the sense of specific forms and strokes belonging to the canonical script, certain generically rounded features are absorbed. In support of this theory, it can also be added that Biblical majuscule is rarely used for lectionaries, which principally employ upright

B (last line in both columns), 78r B (last line), 79r B (last line), 81r A (last line) and B (last three lines: with ornamental elements within the letters), 82r A (last line), 88v A (last two lines), 98r A (last line), 98v A (last line), 104r B (last two lines), 105r A–106r A (full text in liturgical majuscule), 134v A (last two lines), 147r A (last line), 152r A (fourth line from bottom), 156v B (last line), 207v (first three lines), 209v B (line 5 and last two lines), 212r B (last line), 225r B–225v B (full text in liturgical majuscule). In addition, liturgical majuscule was used as display script for the titles of text sections (in gold ink) on the following leaves: 1r (within the *pyle*), 53r (within the *pyle*), 77r (within the *pyle*), 107r (within the *pyle*), 173r (within the *pyle*), 182r (title for the month of October), 187v (title for the month of November), 188r (title for the month of December), 197v (title for the month of January), 204r (title for the month of February, red ink only), 207v (title A for the month of March), 209v (title for the month of April), 210v (title for the month of May), 211v (title for the month of June), 216v A (title for the month of July) and B (title for the month of August).

414 Castellani 1895, 56; Mioni 1967, 56–58; Crisci 1985, 128, pl. 7 a. Liturgical majuscule was used to copy the text on the following leaves: 23v A, lines 12–13; 24r A, line 2 (last line of a liturgical reading); 28v, lines 11–13 (cross-shaped layout on this page only, two-column layout for the rest of the manuscript).

pointed majuscule (see Table 38). Thus what we find is a kind of underlying continuity in the choice of a graphic type (upright pointed majuscule and liturgical majuscule) in relation to the production of manuscripts of a specific textual type.

Having shown that liturgical majuscule is not the result of a synthesis of Biblical majuscule and upright pointed majuscule, there remains the question of how it emerged. In this connection, a possible new path of investigation could be the one suggested in part by Gardthausen, though not followed up by him: to look at the varying ornamental and decorative elements in each letter, which taken as a whole could be seen as a structural component of the script. These are geometrical rather than figurative elements, varying in number and combination, and continually modified (Fig. 69): small 'buttons' or 'pearls',[415] short thin horizontal or oblique strokes (the former grafted onto vertical strokes, the latter on oblique strokes in the reverse direction or horizontal strokes), 'x' shaped signs on horizontal strokes, curls and hooks (especially on letters with curved strokes), terminations in the form of a bolt of lightning, of a '3' or an 'S' (which often replace the vertical stroke of *upsilon*), as well as vegetal decoration such as small leaves and trilobate terminations.

Fig. 69: Characteristic letters in liturgical majuscule with ornamental and decorative elements.

415 On the symbolic meaning of pearls in the Byzantine world, see Orsini 2013, 22 n. 16.

On occasion these ornamental elements are not mere additions but form part of the strokes which make up the letters and thus become part of the letters' structures (as we find, for example, sometimes in *upsilon* and *omega*). It should also be pointed out that these elements should not be confused with those generic elements which have an exclusively decorative function and which characterise late examples of Biblical majuscule and upright pointed majuscule, such as thickenings of line-endings, square or triangular-shaped apices, and various polymorphic insertions. The figure below illustrates the letters in which this varying range of ornamental and decorative elements is most distinct.

The precise graphic models of such forms are not found in the manuscript production of Biblical majuscule or upright pointed majuscule. They belong instead to a very different sphere of production, being found in earlier monumental lettering, inserted in mosaics, objects made of silver or ivory, and in icons.[416] For example, the forms of *rho* and *upsilon* (with the small horizontal stroke which intersects the vertical stroke) are found in fifth-century mosaics, while the forms of *alpha*, *epsilon*, *eta*, *nu*, *upsilon*, *omega* (with the middle stroke either enhanced by or formed entirely of ornamental elements) are found in sixth-century mosaics and silverware. In Greco-Byzantine manuscript book production such forms are found exclusively in liturgical majuscule and in no other earlier canonical majuscule. The conclusion must therefore be that they were taken directly from such publicly visible and monumental lettering for use in the new script, without the intermediate influence of other majuscule bookhands.

6.2.2 The hypothesis of the emergence of liturgical majuscule from other media

It is therefore clear that the form of lettering used on monuments[417] and other objects provided the background or reservoir which, alongside the scribal tradition, fed into the formation of liturgical majuscule. Yet we need to distinguish: as far as the structure of single letters, the module and the chiaroscural contrasts are concerned, the canonical bookhands (Biblical majuscule and upright pointed majuscule) and public lettering contributed equally to the formation of liturgical majuscule. The varying ensemble of ornamental elements, on the other hand, is primarily taken from non-bookhand lettering. Therefore we must conclude that

416 For epigraphic and monumental scripts in the Byzantine world, see Moutsopoulos 1975; Mango 1991a; Morss 2003; Orsini 2012b; Orsini 2015a.

417 For a detailed description and analysis of these public and monumental scripts, see in particular Orsini 2012b.

inscribed objects were the source by means of which a series of ornamental forms were introduced into standard professional scribal practice consisting of the production of upright pointed majuscule. This in turn means that liturgical majuscule is not a 'new' script but rather represents a mode, a particular scribal inclination which brings together earlier forms and materials of different kinds to devise a graphic style which is more or less homogeneous. If it is true, as previous scholars have maintained, that liturgical majuscule recovers past forms, then we should add the clarification that this operation was carried out through a specific (and, among the Greek majuscules, unique) attention paid to graphic models found in display and monumental lettering from earlier centuries, and not exclusively from canonical bookhands.

This formation could be described as 'multimedial' in its identification of the crucial role played in the development of liturgical majuscule not only by other traditional majuscule scripts but also by the majuscule lettering found in frescoes, mosaics, liturgical objects and stone epigraphs.[418]

6.2.3 The visual and figurative function of monumental and display lettering

The monumental and other display lettering used as a source for liturgical majuscule gives rise to a further reflection. The formal 'pictorial' aspect of this graphic type introduces a purely visual function into writing, to be understood as 'visual signs'[419] or 'writing-as-object'.[420] The letters have a pictorial value—enhanced by the presence of ornamental elements—and also a strong communicative impact.

It is probable that these texts were not so much intended to be read and understood by a wide range of readers as conceived and organised in terms of visual communication. The writing is part of the work of art in which it is inserted. The power of the written word is encapsulated in the visible form of the inscription, its dimensions, its materials, its colours. The form of the inscribed letters is part of the decoration of the monument and contributes to its symbolic message.[421]

The visual and figurative function of the written word found in sacred monuments and liturgical objects can also explain why these were used as a source for

418 For the use of graphic and stylistic models found in different artistic *media* in the development of initial letters in a number of antique Byzantine lectionaries (such as Patm. 70 and Paris. gr. 277), see Maayan Fanar 2011.

419 James 2007, 188–206.

420 Barber 2007.

421 On the symbolic meaning of images (and inserted inscriptions) in early eastern Byzantine mosaics (fourth to sixth centuries), see Olszewski 1995.

the forms and structures which characterise liturgical majuscule. It is clear that the selection of which elements to use in the script was not casual. Upright pointed majuscule was the majuscule bookhand most widely used to write Gospel lectionaries (Table 38), while Biblical majuscule was for centuries the official script for sacred texts (the *New Testament* in particular) and was therefore an indispensable point of reference; display lettering, especially that found on sacred monuments and objects, had a visual, figurative and symbolic function as an integral part of the work of art to which it belonged. In short, liturgical majuscule drew on different traditions, bookhands in the production of sacred and liturgical texts and epigraphic ones in the lettering found in sacred inscriptions, and in thus combining their specific functions reinforced their communicative power.

Furthermore, it should be recalled that there is sufficient evidence to show that up until the sixth century in Byzantium there was an ability to read and interpret correctly inscriptions dating from earlier centuries,[422] even though there was increasing interest in using earlier manuscript sources rather than making the effort to transcribe monumental inscriptions. Subsequently, however, this ability appears to go into decline; reading and understanding inscriptions becomes more difficult. This decline in understanding meant that epigraphs increasingly became enigmatic and opaque graphic objects, often mistakenly thought to be mysterious prophecies, menacing curses, indications of hidden treasure or simply words or letters which could be interpreted *ad libitum*. As Gilbert Dagron has observed,[423] these inscriptions became letter-images, charged with a 'hidden symbolism', carrying potential revelations and infinite interpretative possibilities.

In short, it is beyond dispute that ninth- and tenth-century Byzantines were able to see antique inscriptions, but it is uncertain to what extent they were able to read and interpret them correctly. It was, however, precisely this increasing incapacity—which was perhaps simply due to a lack of interest in the inscriptions of Antiquity and late Antiquity and their actual meanings—which enhanced the purely pictorial and figurative impact of the words and letters displayed for all to see.

The reconstruction of an epigraphic tradition as part of the context for the emergence of a new bookhand such as liturgical majuscule must take into account this long-drawn-out process. The Iconoclastic controversy and the Macedonian Renaissance inevitably become part of the epigraphic culture of the Byzantine world, which from the sixth century onwards increasingly acknowledged the iconic uses of the lettering found on public monuments.[424]

422 Dagron 1983; Dagron 1984, 150–156; Orsini 2015a.

423 Dagron 1983; Dagron 1984, 150–156.

424 Orsini 2015a.

6.2.4 Different versions of liturgical majuscule

We now turn to a closer examination of the different versions of liturgical majuscule. On the basis of the recorded manuscripts[425] several versions can be delineated. Although we need to be cognisant of the risk of reducing the variety of liturgical manuscript to an inflexible grid, it is nevertheless convenient to list the different types as follows:

A. liturgical majuscule alternating between the use of a square module (*epsilon*, *theta*, *mu*, *omicron*, *sigma*, *omega*, with a possible enlargement of the forms) and a narrow rectangular module (*alpha*, *beta*, *gamma*, *delta*, *eta*, *kappa*, *lambda*, *nu*, *pi*, *upsilon*); on occasion letters using a square module use a rectangular, even pointed, module instead, predominantly near the end of a line. Examples of this type—the most distinct type among those listed here—can be found in the manuscripts Petropol. RNB. gr. 21 + 21a;[426] Sofia gr. 387;[427] Taurin. B II 22 (f. 199r; Fig. 70);

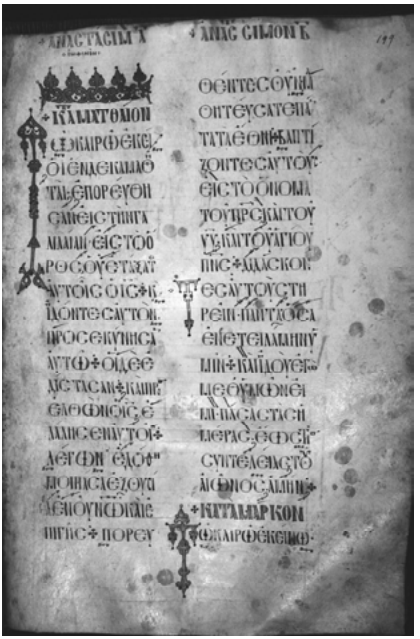

Fig. 70: Taurin. B II 22, f. 199r.

425 Orsini 2013, 53–56.

426 Thibaut 1913, figs 26–27, pls II–V; Cavallo 1967a, pl. 115; Weitzmann 1935, 59, 61, 62, pls 397–398; Likhachova 1977, pls 5–10; Schwarz 1994.

427 Džurova 2001, pl. 50.

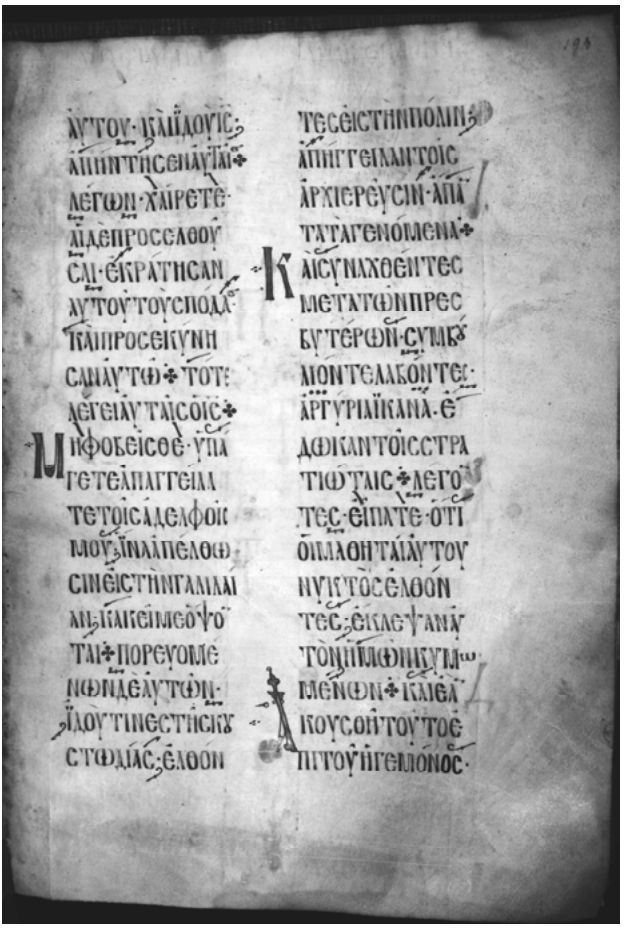

Fig. 71: Taurin. B II 22, f. 198r.

B. liturgical majuscule using a uniform narrow rectangular module, in which the letters *epsilon*, *theta*, *omicron*, *sigma* are laterally compressed, oval in shape and written with soft rounded strokes of the pen. Examples of this type are Laur. Plut. 6.31, ff. 105r A–106r A, 225r B–225v B;[428] Vat. gr. 357;[429] Taurin. B II 22 (ff. 1r–198v, 199v–257v; Fig. 71);

428 See n. 413 in this chapter.

429 Cavallo 1977a, pl. 41; Brubaker 2000, 527, 528, 529, 533, pls 10 b, 11 a–b.

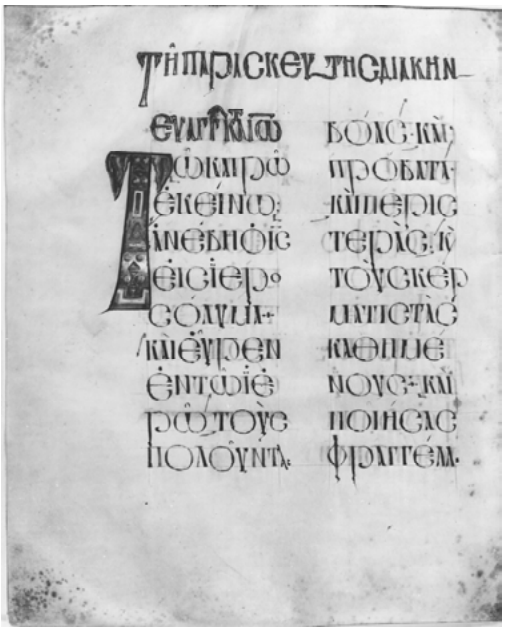

Fig. 72: Paris. gr. 278, f. 26v.

C. liturgical majuscule of monumental design and using exaggerated ornamentation; the effect of monumentality is at times enhanced by the enlargement of square module letters of rounded shape (*epsilon*, *theta*, *omicron*, *sigma*, *omega*), while the other forms use a narrow rectangular module. The main examples are Iaşi ms. 160 (IV-34);[430] Vat. gr. 351;[431] Paris. gr. 278 (Fig. 72);[432] Vat. gr. 1522;[433]

430 Gherghiu 1940; Panţiru 1982, 45; D'Agostino 2004; D'Agostino 2006; D'Agostino / Martani 2005, with figs 1–3. According to D'Agostino (D'Agostino / Martani 2005, 26) the Iaşi codex and Vat. gr. 351 were "written by the same scribe and [...] produced in the same *atelier* at Constantinople in the tenth century".

431 Tardo 1938, pl. VII; Cavallo 1977a, pl. 43; D'Agostino / Martani 2005, fig. 5.

432 Montfaucon 1708, 229; Omont 1892, pl. 21.1; Weitzmann 1935, 6, pls 28–29; Weitzmann 1975, pl. 48; Cavallo 1977a, pl. 49; Stasov 1887, pls 121.1–4.

433 Beissel 1893, pp. 16, 18, pl. IX; Gardthausen 1913, 154; Weitzmann 1935, 6 and *passim*, figs 21–27; *Catalogo* 1936, p. 15; Weitzmann 1948, 41–42; Giannelli 1950, 67–70; Galavaris 1979, 92–93, 100, 124; Touliatos-Banker 1987, 26; Weitzmann 1996, 21; RGK III, n. 246; Iacobini / Perria 1998, 72, 74, 76, 87, 136; D'Aiuto / Sirinian 1999, pp. 139–143, 147–149, pls 2–5; D'Aiuto / Morello / Piazzoni (eds) 2000, 199–202 (entry by F. D'Aiuto); Canart 2000b, 681; Canart 2008, 49. On the identity of hand

Fig. 73: Athen. gr. 59, f. 5r.

D. Liturgical majuscule which is fundamentally pointed, with marked angularity in the written trace of narrow, laterally compressed letters (*epsilon*, *theta*, *omicron*, *sigma*, *omega*) that can also be, alternatively, written on a square module with rounded forms, with the insertion of various ornamentations. Examples of this type are Athen. gr. 59 (Fig. 73);[434] Oxon. BL Canon. gr. 92.[435]

At times these different types alternate within the same manuscript: an interesting example is codex B II 22 in the Biblioteca Nazionale Universitaria in Turin, in which type B is used for the whole text except on f. 199r (containing the opening of the Εὐαγγέλια ἑωθινά; Fig. 70) for which an elegant type A has been employed.

in codices Vat. gr. 1522 and Paris. gr. 278, see Weitzmann 1935, 6; *Catalogo* 1936, 15; Giannelli 1950, 68; D'Aiuto / Sirinian 1999, 140–141.

434 Weitzmann 1996, 80, pl. 632; Cavallo 1977a, pl. 47; Marava-Chatznicolau / Toufexi-Paschou 1978, figs 25–42.

435 Cavallo 1977a, pl. 44; Hutter 1982, no. 68, figs 253–279.

In conclusion, these different types confirm that the liturgical majuscule script was a 'graphic mode' or 'taste', rather than a style or canonical script. It is this shifting identity which gives rise to the problem of fixing internal criteria of dating based on single forms: polymorphism and the juxtaposition of differently inspired models are perhaps the single constant feature of liturgical majuscule.[436]

6.3 The dating of manuscripts written in liturgical majuscule: an unresolved problem

As we have seen, it is the problem of dating manuscripts in liturgical majuscule which has most divided scholars. In reality only Viktor Gardthausen and Guglielmo Cavallo have explicitly proposed useful criteria for the hypothetical datings of manuscripts.[437]

Gardthausen sees the ornamental motif of the πύλη as a possible, non-palaeographic, criterion; this motif was widespread above all in the eleventh and twelfth centuries;[438] in manuscripts with the text written in two columns to a page he claims that the motif was first used in just one column and then, from the twelfth century onwards, in both. According to Gardthausen, therefore, the presence of this ornamental feature in the manuscripts cited in his manual as being written in liturgical majuscule could be used as a criterion for the dating of manuscripts to the eleventh and twelfth centuries. However, a summary overview (Table 36)[439] shows that in manuscripts written in a single column the πύλη, already recorded from the second half of the ninth century, is used consistently from the

436 In addition, in regard to types A and C, it should be pointed out that the characteristic of an enlarged module for letters with round bodies is also present in Biblical majuscule, and can also be found in manuscripts the origin of which was attributed by Cavallo to the Constantinople region: see Cavallo 1967a, 93–98, pls 84, 85, 95; Cavallo 1977a, 106, pl. 33.

437 With regard to the criteria for dating manuscripts in majuscule scripts (not only liturgical), see Sandra Martani's studies relating to ekphonetic notation in Byzantine Gospel lectionaries: Martani 2002; Martani 2003; Martani 2004; D'Agostino / Martani 2005, 26–41). For manuscripts in liturgical majuscule, Martani attributes Vat. gr. 351 and Iaşi 160 to the second half of the tenth century, and records a similarity between the notation in manuscripts Vat. gr. 1522 and Paris. gr. 278 and that found in the lectionary Sinait. gr. 213, copied by the presbyter Eustathios in sloping pointed majuscule in the year 967 CE (see p. 144 and Fig. 54 in this volume).

438 Gardthausen 1911, 224–225; Gardthausen 1913, 156.

439 Data relating to different typologies of πύλαι in two *corpora* was examined: Greek manuscripts in minuscule dated up to 1204 published by the Lake (Lake I–X [1934–1939]; Lake 1945), Greek manuscripts with decoration and ornamentation dated up to 1453 [published] by Iohannis Spatharakis (Spatharakis 1981).

first half of the tenth century up to the fourteenth century; in those manuscripts written in two columns the motif appears more often in a single column than in both. The motif is thus older than Gardthausen states in his manual, so much so that Jean Ebersolt, in explicit contrast to Gardthausen's views, traces its origins back to the ninth century.[440] It is perhaps even possible to see its first appearances towards the end of the eighth century.[441]

We can also add—although a thorough investigation has yet to be carried out—that the motif of the πύλη is absent in several manuscripts written in liturgical majuscule, such as Escorial. Ψ.I.14 and can therefore only be of partial aid in dating. In short, Gardthausen's proposal is not consistently reliable as a criterion for establishing the history of liturgical majuscule.

Cavallo's criterion is quite different. He has put forward the hypothesis that a chronological sequence for the production of manuscripts in liturgical majuscule could be based on the principle of 'the increasing development of the monumental aspects and decorative flourishes in the script'.[442] On the basis of this model, which Cavallo had used to establish a chronological sequence for canonical majuscules, liturgical majuscule is seen as evolving from simple to complex forms. In reality, as we shall see, if we take the few manuscripts which can be more or less specifically dated and in which liturgical majuscule has been used as a display script, we find that although the earliest examples (belonging to the ninth century) are free of ornamental elements, the remaining manuscripts (from the turn of the ninth century and the tenth century) cannot be distributed in a gradual but progressive sequence, proceeding from simple to complex, but seem rather to be shaped by requirements of taste, the requests of the client who has commissioned the manuscript and the symbolic and figurative functions of the script. Therefore, if a particular manuscript uses a liturgical majuscule which is richer in ornamentation, this does not necessarily mean that it should be dated after another manuscript in which the ornamentation is more soberly deployed, or vice versa.

Thus the criteria proposed by Gardthausen and Cavallo are unreliable; we need to acknowledge that, in the current state of palaeographical research, it is not possible to advance hypothetical dates for manuscripts written in liturgical majuscule without bringing together palaeographical and non-palaeographical, stylistic and non-stylistic elements.

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440 Ebersolt 1926, 23, 77 (Notice 10).

441 Orsini 2013, 43 and n. 118; see Bianconi 2016 on the various hypotheses on the origin of the πύλη motif in Greek and Coptic manuscripts.

442 Cavallo 1977a, 108.

There remains a hitherto unexplored path of investigation, which can be considered here, by way of experiment, as a further contribution (though not a definitive one) to solving the problem of dating manuscripts written in liturgical majuscule. In the absence of dated manuscripts, we can take into consideration those manuscripts (written in majuscule or minuscule) which are either dated or datable with a degree of certainty, in which liturgical majuscule appears as a display script in rubrics and titles. In this way various examples of liturgical majuscule which have a more or less reliable dating can be studied. But the operation is not without risk. There are in substance two problems: 1. display scripts do not always provide elements which can be used as guidance in as much as the decorative function can at times produce a destructuring or morphological change in the writing; 2. it is not always possible to extrapolate the results of an analysis of the display scripts to the majuscule used in copying the body of the text, applying the same chronological paradigm in parallel to two manifestations of the same script. In this connection it is worth pointing out that no study as yet exists of the morphological and chronological connections of the Greek majuscule scripts used both in rubrics and titles and in writing the text. As a result there is no historical model against which any findings can be measured.

With these preliminary considerations in mind, we can now examine various examples of manuscripts in which liturgical majuscule has been used as display script. It can be found in manuscripts of both sacred and profane texts, in which the main text is written in either majuscule or minuscule. Citing only some manuscripts in which liturgical majuscule has been used in the titles of books or chapters, there is Laur. Plut. 70.3 (Herodotus), attributable to the first half of the tenth century, in which the text is written partly in *bouletée italique* minuscule (ff. 1–238, except for ff. 158v, 159v, 160r, 160v ll. 1–3, 161v, 162r which the same scribe has written in *bouletée* minuscule) and partly in round minuscule (ff. 239–376);[443] Mosq. GIM 139 Vlad. (57 Savva) (Gregory Nazianzenus, *Homilies*), attributable to the first half of the tenth century, the text of which is copied in 'Anastasian type' minuscule;[444] Laur. Plut. 81.11 (Aristotle, *Nicomachean Ethics*), attributable to the tenth century, the text copied in round minuscule; the celebrated Marc. gr. 454 (Homer, *Iliad*), attributable to the end of the tenth

443 *PS* s. II, I (1884–1894), ll. 84; Agati 1992, 153, 250–251, 289–290, pls 104, 166, 204; Luzzatto 1998, 74–76; Luzzatto 1999, 98–99 and n. 37, 158–159; Luzzatto 2000. On the *bouletée italique* of this manuscript, see also Orsini 2004, 98.

444 See *Repertorium Nazianzenum* 1993, 219–220; *Russia* 2004, 23–24, with two pls.

century, with the text written in informal sloping minuscule.[445] The list could go on but it is more useful at this point to focus on three datable manuscripts and three dated ones, in order to carry out a chronological comparison between examples where liturgical majuscule has been used as display script and where it has been used for the main text.[446]

6.3.1 Datable manuscripts

1. Marc. gr. Z. 1 + Vat. gr. 2106 (*Old Testament*): attributed, largely because of the decorative elements, to the eighth century (according to Italo Furlan and Antonio Iacobini) or to the ninth century (in the view of Kurt Weitzmann);[447] the text is written in sloping pointed majuscule. On f. 163r of Marc. gr. Z. 1 a non-representational decoration functions as a colophon (Fig. 74):[448] a foliate cross with, written inside, an inscription in upright pointed majuscule (with the reintroduction of rounded letters), in which the scribe Basil, a monk and abbot of the monastery of Zikaron (?), invokes divine protection. At the base of the cross, written in a script which has much in common with liturgical majuscule (type A), there is the completion of the subscription, with the name of the second scribe, the monk and calligrapher Onesimus. The letters are rounded, the module is enlarged to the extent it slightly breaks the lines above and below, the ornamental elements consist of terminal *empattements* in the shape of a triangle, and artifice is used to heighten the chiaroscural contrast. The same majuscule is used both in the Marciana manuscript and the Vatican one for the titles.[449]

445 On this manuscript, see Mazzucchi 2012, in which he identifies the hand of the Marciana manuscript with the scribe who copied codex Ambr. B 114 sup.

446 For a detailed analysis of these manuscripts, see Orsini 2013, 45–51.

447 Vat. gr. 2106: parch., ff. 132, mm 398×275, coll. 2, lines 60; Marc. gr. Z. 1: parch., ff. 164, mm 415×303, coll. 2, lines 60. See Weitzmann 1996, 89–90, pl. 675 (proposing a comparison of palaeographical and decorative features with codex Princeton Garrett 1, attributable to the ninth century and the Cappadocia region); *Cento codici* 1968, pls 8–9; Furlan 1978, 16–18; Zorzi 1988, 56, pls III–V; Rahlfs / Fraenkel 2004, 372–374; Iacobini 2006, 7, fig. 2; Iacobini 2008, 200 and fig. II.5.3. On the place of origin of the codex, Weitzmann inclines towards Caria, whereas Furlan prefers Bithynia.

448 Furlan 1978, pl. 1; Zorzi 1988, pl. V; Džurova 2001, 36, fig. 36; Iacobini 2006, fig. 2; Iacobini 2008, fig. II.5.3. On the scribes, see Vogel / Gardthausen 1909, 54 and 368.

449 In Marc. gr. Z. 1 the liturgical majuscule used as display script for the titles can be found on the following leaves: 41r A (within a rectangular frame), 45r B, 47r B, 48v A, 49v A, 51v B, 52v A (in enlarged module), 76r B, 94v A, 96r A, 98v A, 118r A. It should be added that a series of text titles are written in the same display script, but in the [smaller] module of the text hand (mm 2–

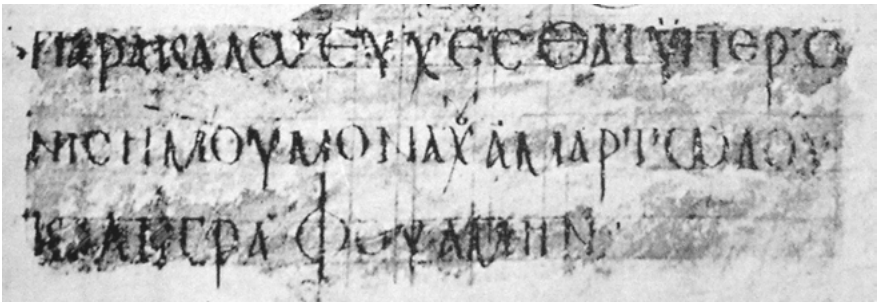

Fig. 74: Marc. gr. Z. 1, f. 163r.

2. Laur. Conv. Soppr. 202 (corpus of Pseudo-Dionysus the Areopagite): written in sloping pointed majuscule and attributable to the ninth century.[450] On f. IIv[451] there are two epigrams written inside a medallion drawn within a square with plant and zoomorphic motifs (Fig. 75).[452] The epigrams are written in liturgical majuscule (type A), in which the rounded forms are enlarged and distinctive to the degree that the letters *epsilon*, *theta*, *omicron*, *sigma* and *phi* break the bilinearism. In addition, on f. 166r, col. II, there are nine lines written in liturgical majuscule, but in a different hand from that of the epigrams inside the medallion on f. IIv.

3): see Orsini 2013, 46 n. 128. In Vat. gr. 2106, liturgical majuscule can be found as display script for titles on the following leaves: 6r A, 50v B, 118v A. On other leaves (ff. 6v, 9r, 21v B, 22r, 51r, 73v B, 84r A, 105v A) titles are written in violet in a majuscule script that is influenced by liturgical majuscule but does not possess all of its characteristics, is less distinctive and occasionally shows a laterally compressed module.

450 Parch., ff. 206, mm 378×285, coll. 2, lines 29. Bonicatti 1959, fig. 2; Grabar 1972, fig. 102; Džurova 2001, fig. 31 on page 34; Gentile 1997, 172–177, fig. on page 173. In a monumental upright pointed majuscule, close to epigraphic style only ff. 6v–8r, 41v–42r, 96v, 165v–166r; a minuscule hand (of Zanobi Acciaioli: see Gentile 1997, 172–177 [entry by di M.C. Vicario]; Vicario 2000, 129) on ff. 9–16, 81–84, 116–122, 171–174, 191–196.

451 Ff. I–II are actually a bifolium, and ff. III and 1 another one; the following quire, instead, is made up of ff. ff. 2–8, with ff. 7 and 8 pasted together. The original first quire was probably a quaternion made up of ff. 1–8.

452 Vitelli / Paoli 1897, pl. XVII (with diplomatic transcription); for an edition of the epigrams, see Cougny 1890, epigr. 419 and 420.

Fig. 75: Laur. Conv. Soppr. 202, f. IIv.

3. Laur. Plut. 28.26 (astronomical texts and the *Procheiroi kanones* of Ptolemy): it can be dated to the period between 886 and 912 and was probably written in Constantinople.[453] On ff. 34v–45r (f. 44v is blank) and 55r–128r (f. 124r is blank), in addition to the Biblical majuscule used for the numbers and the captions, liturgical majuscule (both types A and B are present) is used for the running titles on each page and for the titles of the tables (Fig. 76). The rounded forms are enlarged and there are ornamental features (which are absent in the two examples just discussed) in the letters *eta*, *mu*, *upsilon*, *phi* and *omega*. The edges of the letters are written in red ink and their body gilded.

453 Parch., ff. 129, mm 227×180, the layout includes a grid which has been drawn for the insertion of the astronomic tables. See Vitelli / Paoli 1897, pls XIII, XXV, XXXI; Lefort / Cochez 1932, pls 76–77; Lake X, no. 363, pls 674–675, 680; Tihon 1978, 139–141; Tihon 1992, 64–66, pl. III; Bianconi 2010, 39–63, pls I–VI. On f. 39v the earlier hand, in Biblical majuscule, is found up to the name of the Emperor Leo VI; four later hands follow which add the names and regnal years of the [Byzantine] emperors from Alexander (912–913) to Constantine XI Palaiologos (1449–1453). The last hand has been identified as that of 'Ciriaco de' Pizzicolli d'Ancona' by Bianconi 2010, 57–58. The fact that the earlier hand has written only the name of Leo VI and not his regnal years (886–912), which were added by the hand that follows on in immediate succession, (attributable to the eleventh century: see Bianconi 2010, 45), would suggest that the first scribe was writing after 886 and before 912 CE.

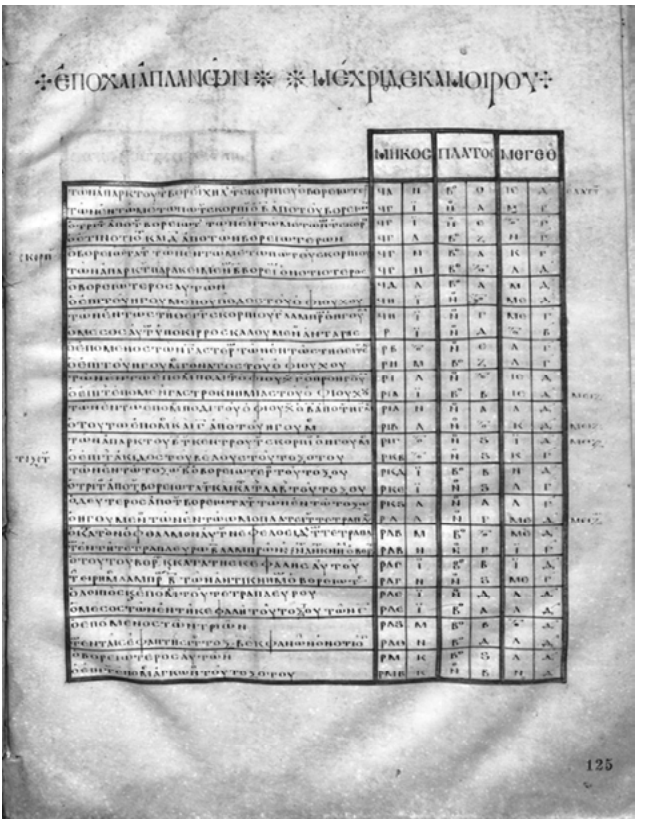

Fig. 76: Laur. Plut. 28.26, f. 125r.

6.3.2 Dated manuscripts

1. Hierosol. τοῦ Τιμίου Σταυροῦ 55 + Petropol. RNB gr. 339 (various monastic texts): the copying was finished by a certain monk by the name of Paul on 14 April 927.[454]

454 Hierosol. τοῦ Τιμίου Σταυροῦ 55: Parch., ff. 156 (153 numbered, plus three unnumbered: 1 bis, 103 bis, 139 bis), mm 232×170, col. 1, lines 25. See Vogel / Gardthausen 1909, 378; Papadopoulos-Keramaeus 1897, 109–111, with two pls between pages 110 and 111; Agati 1992, 259–260; Irigoin 1977, 196 and fig. 8; Lake I, pls 3–6; Lefort / Cochez 1932, pl. 24. For the two leaves in St Petersburg, see Cereteli / Sobolevski 1913, 6, pl. 2; Lefort / Cochez 1932, pl. 23; Devreesse 1954, 289; Granstrem 1961, II, 254–255; Kavrus 1986, 192, 197.

He wrote in both a *bouletée* minuscule (ff. 1–84, 141–156) and a calligraphic minuscule sloping to the right, close to the so-called *bouletée italique* (ff. 85–140 and the two leaves in St Petersburg).[455] On f. 153r his subscription can be found (Fig. 77):[456] the first seven lines are written in liturgical majuscule (type B), using artifice in pronounced chiaroscuro and certain ornamental elements such as the enlargement of the bowl (in *epsilon*, *theta*, *omicron*, *rho*, *sigma*, and *omega*)—at times double-lobed (in *rho*), at others trilobate (in *omega*)—swellings or drops (at the centre of the curved stroke in *mu*) and rings (at the base of *upsilon*, instead of a vertical stroke). The last seven lines of the subscription are written instead in a display Alexandrian-style majuscule, which is also found on ff. 85–140.

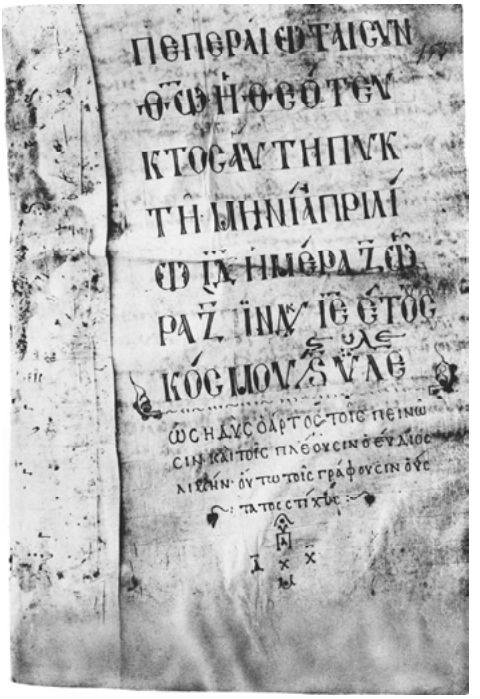

Fig. 77: Hierosol. τοῦ Τιμίου Σταυροῦ 55, f. 153r.

455 On the minuscule script of these leaves, similar in style to the *bouletée italique*, see Orsini 2004, 96, 100.

456 F. 153 is presently sewn onto a flyleaf at the end of the codex, meaning that it is possible it did not originally form part of the manuscript, but came from a different one. In their repertory, though, the Lakes are inclined to believe that it was always part of the manuscript.

2. Vat. gr. 354 (*Four Gospels*):[457] the copying was finished by a monk named Michael on 1 March 949.[458] His subscription is found on f. 234v, but his name also appears in two invocations on ff. 77v B and 115v. Both the subscription and the two notes are written in upright pointed majuscule. For the transcription of the text, on the other hand, the scribe used a pointed majuscule with a slight slope (angle of 98°), along with, solely as display script, upright pointed majuscule and liturgical majuscule, deployed in a deliberate sequence.[459] The upright pointed majuscule and the liturgical majuscule have been used to copy either accessory notes to the Gospels or those parts of the Gospels which needed highlighting, such as the *incipits* and *explicits* or entire opening sections. The liturgical majuscule belongs to type B, with pronounced decorative elements, the writing slightly sloping to the left, letters drawn with double lines and at times filled in with yellow or blue or red pigment.

3. Oxon. BL Laud. gr. 75 (the *Homilies* of John Chrysostom):[460] copied by two scribes (A, ff. 1r–177v and B ff. 178r–368) in a somewhat informal antique round minuscule. On f. 363v there is the subscription (Fig. 78),[461] the first four lines of which are written in *epigraphische Auszeichnungsmajuskel* (with several ornamental elements which are also found in liturgical majuscule), but the following nine lines are written in liturgical majuscule (type A), of which the execution is elaborate but the structure is simple. A different liturgical majuscule (with an artificially accentuated

457 Parch., 255×233 mm, ff. IV, 234 (+ 102a, 153a, 158a, 181a), I (= 235), col. 1, lines 25. See Mercati 1904, 3–15; Franchi de' Cavalieri / Lietzmann 1929, pl. 13; Lefort / Cochez 1932, pl. 78; Weitzmann 1935, 75–76, figs 511–515; Devreesse 1937, 38–39; Hatch 1939, pl. 69; Follieri 1969, 17–19, pls 7–8; Grabar 1972, 48–49, pl. 45; Di Benedetto 1983; Weitzmann 1996, 63, 68; D'Aiuto / Morello / Piazzoni (eds) 2000, 204–207 (entry by P. Degni).

458 RGK III (1997), no. 471, pl. 259 (f. 234v).

459 Orsini 2013, 49–50.

460 Parch., mm 345×265, ff. 368, coll. 2, lines 40–42; correct order of leaves: 2r–19v, 1rv, 20r–177v, 187r–192v, 178r–186v, 193r–365v. See Coxe 1853, 560–561; *PS* s. II, I (1884–1894), pl. 6; Madan 1922, 33; Weitzmann 1935, figs 412–413; Aubineau 1968, 240–241; Lake II, 11, pls 100–102; Lefort / Cochez 1932, pl. 47; *Oxford* 1966, 18; Wilson 1973, 18, figs 25–26; Hutter 1977, no. 16, figs 82–84; Hutter 1982, 322–324; Follieri 1997, 337–376: 351, 356, 357 n. 94. For the place of origin, two have been proposed: southern Italy or a provincial centre in the Middle East. According to Hutter, the manuscript was produced in Asia Minor and not in southern Italy.

461 The wording of the dating formula in the subscription is problematic: see Serruys 1907, 186 n. 7; Devreesse 1954, 51 nn. 4–5, 293; Grumel 1958, 125; Hutter 1982, 323; Follieri 1974, 147 n. 9, 148 n. 12; Spatharakis 1981, 14, no. 20, figs 45–46. The year 6485, in the month of September, indiction 6 may refer to the year 977 CE (according to the Byzantine era, first style [year beginning on 21st March]; see Grumel 1958, 111–128), or to the year 992 CE (according to the Alexandrian era, first style [year beginning on 21st March]; see Grumel 1958, 85–97). The Byzantine era appears in manuscripts from the ninth century onwards and becomes the prevailing reference towards the end of the tenth century.

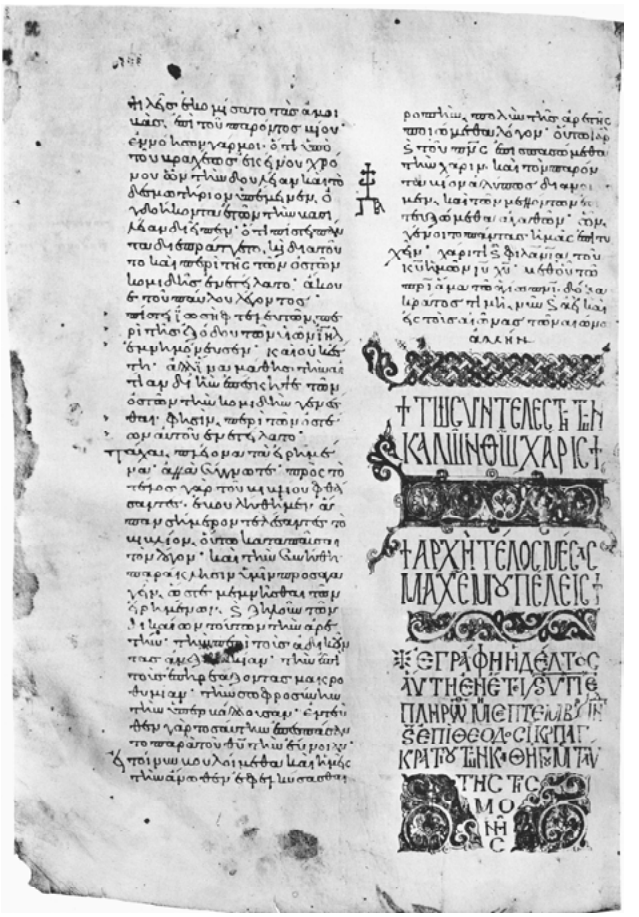

Fig. 78: Oxon. BL Laud. gr. 75, f. 363v.

chiaroscuro and diverse ornamental features) was used in the main part of the manuscript for running titles and, where these are still visible, the Greek numerals used for the signatures.[462]

These different manifestations of liturgical majuscule are significant for various reasons. Above all they make it clear that this majuscule was used as display script from at least the ninth century onwards. Nevertheless, it is between the ninth and tenth centuries that the general characteristics of liturgical majuscule (the taste for

462 Lake II, 11, pls 100–101.

rounded forms, the insertion of ornamental elements of different origins, the artificial chiaroscuro) come to be defined as part of a system which could be described as 'open' and shifting.

The variability in the structure and in the forms of individual letters means that a single and coherent unilinear development cannot be constructed. The analysis of the dated and datable manuscripts confirm that polymorphism and concurrent mutability constitute the essence of liturgical majuscule and leads to the conclusion that each of the manifestations we have looked at here stands alone, in the sense that they cannot be used as a true term of comparison for the manuscripts which cannot be dated on the basis of external evidence.

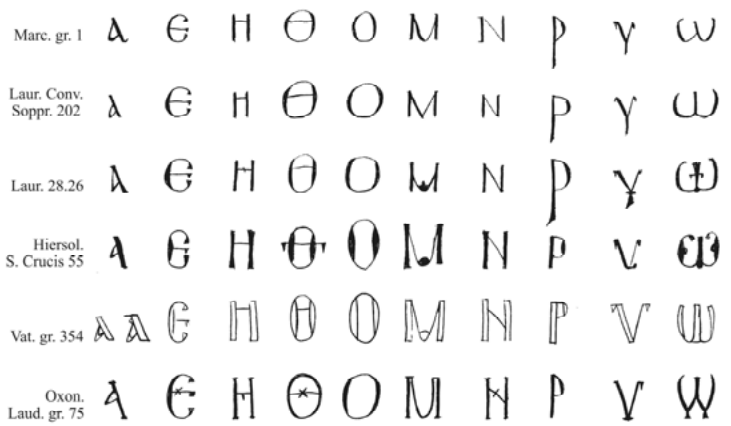

Fig.79: A synoptic table of the principal characteristics of liturgical majuscule used as display script in manuscripts which are dated or can be dated with some certainty.

Furthermore, polymorphism and variability are also the norm when one looks overall at the ornamental elements. The two earliest manuscripts (Marc. gr. Z. 1 + Vat. gr. 2106 and Laur. Conv. Soppr. 202, Fig. 74 and 75) are substantially ornament-free, while in the other manuscripts the ornamentation does not form part of a gradual evolution proceeding from simple to complex forms. The ornaments in the Jerusalem codex (927 CE) are poorer than the wealth of ornamentation found in Laur. 28.26 (888–912 CE); Vat. gr. 354 (949 CE) has more complex motifs; Oxon. BL Laud gr. 75 (977 or 992 CE) opts for a simpler and more restrained ornamentation than the Vatican codex.

This sequence seems to confirm that the proposed method, referred to above, of dating liturgical majuscule on the basis of the gradual elaboration of its monumental and decorative aspects is not a reliable criterion for assigning dates.[463]

Finally, these manuscripts also show that liturgical majuscule was used as display script in non-liturgical manuscripts, an indication of the way in which this graphic type, because of its symbolic and 'pictorial' impact, became a main point of reference for any scribe who wished to insert letters functioning like images into the ornamentation of a manuscript, thus breaking the link with the Gospel lectionaries for which liturgical majuscule was first created.

6.4 Ideology of sacred script and aesthetics[464]

A significant fact emerges from what we have seen so far for our understanding of liturgical majuscule: it is recorded with certainty from the ninth century onwards, at a critical time for Byzantine culture and writing. The ninth century was marked by three important phenomena: the beginnings of the so-called Macedonian Renaissance, the second phase of the struggle between the iconoclasts and the iconodules, and the consolidation of the role of minuscule as a bookhand replacing majuscule. These phenomena provide the historical context in which all the elements which prepared the way for the new graphic style of liturgical majuscule developed, namely:

1. an impulse towards a backwards-looking recovery of public and monumental inscriptions created in earlier centuries, as part of an epigraphic culture which saw in them a 'hidden symbolism', vehicles of revelation and infinitely possible meaning;
2. a culture which found a plurality of meaning in writing: as form, aesthetic value, transmission of texts and iconic representation of the divine 'Word';
3. a specific aesthetic conception of the Gospel lectionary (a form of liturgical text which develops from the eighth century onwards), seen as a material manifestation of the divine Logos alongside other sacred and liturgical objects and like them conceived as an artistic artefact, richly decorated and intended for display;
4. the specialised use of majuscule scripts, and in particular of upright pointed majuscule, for the transcription of sacred and liturgical texts.

463 Cavallo 1977a, 108.

464 For a more detailed analysis of the discussion presented here, see Orsini 2013, 59–79.

Yet it is also the case that these elements would not have come together had it not been for the existence of a particular ideological concept of writing and a specific aesthetic approach to sacred and liturgical objects. The doctrinal conflict over the role of images and texts in Christian culture between iconoclasts and iconodules encouraged an osmosis of different graphic traditions (both from book production and epigraphy) through the promotion of specific communicative functions and the creation of a new graphic space needed for the production of an artefact (the book as object) like the Gospel lectionary.

In the complex debate between iconoclasts and iconodules the relationship of image and text played an important role. Three arguments, all advanced by the iconodules, are particularly significant: 1. the equivalence, at a formal level, of images and writing as a means of communication; 2. the possibility that images can do what writing does and vice versa; 3. the inclusion of writing as part of sacred images as a way of certifying and guaranteeing the sacredness of the persons who were depicted.

This ideological concept of writing was accompanied by another attitude which emerged with greater self-awareness in the period of the Iconoclastic controversies, the tendency to exalt the material, visual and aesthetic aspects of the Εὐαγγέλιον,[465] regarded as a materialisation of the divine. This in turn led to the following phenomena: 1. the book of the Gospels was seen as a sacred object, just as much as the cross, the paten, or the chalice, and was therefore treated, like them, as a work of art; 2. an aesthetic difference between the Εὐαγγέλιον produced by the iconoclasts and by the iconodules: the first was without artistic figurative elements (or if they existed they were removed), while those of the second group aimed to integrate a calligraphically written text with images; 3. the belief that the visual and figurative elements (including the script) could convey the content of the sacred book as much as the text read or listened to by itself, resulting in a complete realisation of the book's symbolic function, or rather, its function as a symbol.

It should not be forgotten that the Εὐαγγέλιον in the liturgy of the Great Church in Constantinople represented the Holy Wisdom and was the visible sign of the epiphany of Christ proclaiming his Advent as the eternal word of God. The visual

465 We should recall that (at least up to the tenth century) the word Εὐαγγέλιον in Byzantine Greek referred to both Gospel lectionaries and the *Four Gospels*, the latter being the full text of the Gospels, often adapted to liturgical use with the addition of *signes-de-renvoi* or notes marking the beginning or the end of each pericope or indicating the intended use for a particular occasion; from the eleventh century onwards it appears that the word Εὐαγγέλιον was used specifically for lectionaries, whereas Τετραβάγγελον was reserved for the *Four Gospel* texts: see Dolezal 1991, 76–78.

centrality of its role in church liturgy and in religious ceremonies at court determined its status as a 'ceremonial book' or 'display-book',[466] codicologically, graphically and decoratively designed to be shown in public and venerated. In some cases—seven of the 2,436 lectionaries in Aland's updated list—precious materials were used in its making (purple-dyed parchment and gold and silver ink)[467] or they were enriched with complete cycles of images (Lowden estimates that there are about forty-fifty lectionaries illustrated in this way).[468] They were also on occasion bound in precious materials, though only a few of these bindings survive (such as the lectionary in the Treasure of St Mark's in Venice[469] or that found in the Σκευοφυλάκιον of the Μονὴ Μεγίστης Λαύρας on Mount Athos[470]) since, in the majority of cases, they were probably stolen on account of their monetary value.[471]

6.4.1 Liturgical majuscule and the Gospel lectionary

The ideological concept of writing and the symbolic aesthetics of liturgical objects such as lectionaries, which emerged during the period of the Iconoclastic controversy, can help us to understand better liturgical majuscule as a historic phenomenon. As has been pointed out, this script was devised and used for a single type of text, the Gospel lectionary, a liturgical book which, from about the eighth century onwards, was formally structured in two parts, the Synaxarion, which followed the

466 See in particular Cavallo 2006, 346–355. On the symbolic meaning acquired by Christian books in general from the fourth century onwards, see e.g. Crisci 2005a, 138–139, 141–143, 145; Crisci 2005b, 29–31; Luijendijk 2010, 232–236.

467 Weitzmann 1971, 247–270; Deshman 1973, 40–43; Tsuji 1973, 34–39; Weitzmann 1980, nos VIII–XIV; Lowden 1990; Dolezal 1996; Patterson Ševčenko 1998; Lowden 1999; Canart 2000a, 89–92; Zacharova 2004; Lowden 2009.

468 Lowden 1990; see also Dolezal 1991, 3, 150, 151 n. 3; Dolezal 1996, 24–25.

469 It is highly probable that the present binding of codex Marc. lat. I, 100 (2089) was originally the binding of a Byzantine lectionary of the tenth or eleventh century; see Zorzi 1993, 22 no. 6, 28; *Glory of Byzantium* 1997, 88 (entry by I. Kalavrezou).

470 The manuscript is attributable to the beginning of the eleventh century on palaeographical grounds. See *Thesauroi* 1979, 24, 217–219; Weitzmann 1935, 46–48; Weitzmann 1980, no. VIII, XI; Weitzmann 1996, 48–49. According to Litsas 2000, 218–220, this binding belonged to a different manuscript, i.e. Athon. Lavra A 86, copied in liturgical majuscule and attributed by scholars either to the eighth century, the end of the tenth century, or the beginning of the eleventh century.

471 On jewelled bindings found on early Christian manuscripts, see Lowden 2007, 23–31 (silver bindings), 31–34 (gold bindings), 34–44 (ivory bindings).

order of moveable feast days, and the *Menologion*, which followed the fixed feast days according to the Byzantine calendar.[472]

Of the lectionaries included in Kurt Aland's *Kurzgefasste Liste*, 12.6% (296) are written in majuscule and 87.4% (2,047) in minuscule.[473] It is particularly noteworthy that over the course of the ninth and tenth centuries majuscule continued to be by far the preferred script for lectionaries (see Table 37) even though by this period minuscule was used prevalently for other types of texts. As for the types of majuscule used in lectionaries, according to the results of my own calculations (Table 38),[474] upright pointed majuscule is most frequently found, followed by liturgical majuscule, and then by sloping pointed majuscule. Alexandrian (bimodular) majuscule and Biblical majuscule are very rarely found. All these scripts, apart from liturgical majuscule, were used for other texts, both sacred and secular, in addition to lectionaries and were used from late Antiquity onwards. Liturgical majuscule, on the other hand, was specifically devised and used during a circumscribed period for the purpose of producing lectionaries in a particular graphic style.

If we look more closely at the different types of lectionaries produced in liturgical majuscule, we note a significant feature: it is used almost exclusively for lectionaries in which the *Synaxarion* contains only readings for Saturdays and Sundays (marked by Aland with the sigla '*l*sk') or only for Saturdays and Sundays with the exception of the period from Easter to Pentecost, during which there are daily readings (marked by Aland with '*l*sek'), or for lectionaries which contain either a selection of readings or just one part of the sequence (marked by Aland with '*l*sel' and '*l*P'), which in many cases are anthologies of readings for the main saints' days arranged according to liturgical requirements and selected from complete lectionaries.[475]

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472 We know only of a few fragments datable before the eighth century which, according to Junack 1972, could come from lost lectionaries. On the structure and formation of the lectionary, see in particular Dolezal 1991, 1–148.

473 Aland 1994; an up-to-date list available at http://egora.uni-muenster.de/intf/service/kurzgefasste_Liste_Juni_2018.pdf.

474 This estimate is based on ca. 50% of the lectionaries in majuscule listed in Aland 1994.

475 Among the lectionaries in liturgical majuscule investigated here, only one includes readings for all the days in the week in the *Synaxarion* (a typology classified by Aland as '*le*'): Vat. gr. 1067, copied in the tenth century, possibly in a provincial ambience. See Batiffol 1891, 72; Gregory 1900, 390 no. 36; Gardthausen 1913, 402; Tardo 1931, 225, 238; Devreesse 1965, 223, 309; Cavallo 1977a, 108, 135, fig. 46; Touliatos-Banker 1987, 26; Dolezal 1991, 80 n. 13. It is worth pointing out that this manuscript (ff. 268: ff. 1r–260v: *Synaxarion*; ff. 261r–268v: *Menologion*) is imperfect at the beginning and at the end and shows textual *lacunae* between ff. 89 and 104 due to the loss of a number of leaves.

These textual features are of relevance. According to Klaus Junak[476] and Pierre-Marie Gy,[477] complete lectionaries (*l*e) were written for monastic use, while the others followed the ordinary practice of churches in which the liturgy was celebrated only on Saturdays and Sundays. Therefore the close connection between the use of liturgical majuscule and the category of lectionaries containing only readings for Saturdays and Sundays—in other words, written for liturgical use in churches—underscores the intended visual and figurative impact of liturgical majuscule which was thus, alongside all the other sacred objects, part of the system of symbolic communication practised in Byzantine churches. These lectionaries destined for liturgical display in churches gave priority to the figure or image formed by the graphic signs on the page rather than the reading of the text; 'from this', as Cavallo has noted, 'comes the use of complex formal techniques to emphasise the decorative and visual impact of the script' so as to form 'a system of signs designed to draw attention to itself and induce a reverential awe for the text by sheer visual impact alone'.[478]

When the ideological values of a sacred text are conveyed not merely by reading the words but also by the script in which they are written, which has the same direct figurative impact of images, then, in Armando Petrucci's words, 'certain types of scripts and of books are developed, in which the monumental and decorative elements take on special importance and aesthetic value; [...] this acquisition of meaning leads to a process whereby the scripts and the books become "sacralised", a process which can develop and continue after and beyond the material distribution of the particular sacred text through which it first came into being'.[479]

Moreover, alongside and in combination with the display function of lectionaries intended for church liturgical use, the development of the characteristic figurative and artistic features of a script like liturgical majuscule may have owed something to the iconoclasts' prohibition of sacred images in the production of sacred art, including the illustration and decoration of liturgical manuscripts. The most important legacy for contemporary visual culture left by the Iconoclastic controversy was precisely the development of a theory which placed formal writing and image on the same level, thus coming to recognise the visual and figurative power of writing itself, in the historical context of a long period in which the representation of sacred images was either forbidden or strongly opposed. While the development of such a theory cannot be directly linked to the creation of new graphic styles

476 Junak 1972.
477 Gy 1967.
478 Cavallo 1994, 55.
479 Petrucci 1973, 964.

(much caution is always needed in trying to relate specific graphic phenomena to wider theoretical and doctrinal developments) it is a plausible conjecture that certain aesthetic choices aimed at enhancing and reinforcing the graphic element in the visual context in which it appears might have been influenced by the development of such a theory.

Thus the written word became part of a hierarchy of images and, like a sacred image (or instead of a sacred image), is seen in transcendental relation to the element it represents; it reflects its prototype, the divine Logos which speaks through the sacred scriptures, invisible and supernatural, a vehicle for the transmission of divine forms, in other words a symbol. In this way each graphic sign, as part of the material scriptural text, is also part of the meaning of the whole. And it was in this way, under the influence of such an ideological concept of writing, and specifically in the production of lectionaries, where, alongside the sober but elegant upright pointed and Biblical majuscules, it was chosen solely for those lectionaries intended for church liturgical use, from the ninth to eleventh centuries, a new majuscule came into being, liturgical majuscule, the only graphic type in the history of Greek bookhands in which script and image are merged as one.

6.5 Tables

Years	1P1	2P1	2P2	Tot.
851–875	1			1
926–950	1	1		2
951–975	2	1		3
976–1000	2	6	1	9
1001–1100	1	1		2
1001–1025	4	4		8
1026–1050	2	3	1	6
1051–1075	4	13	1	18
1076–1100	4	4		8
1101–1200			1	1
1101–1125	4	3	1	8
1126–1150	4	2		6
1151–1175	4	5	1	10
1176–1200		4		4
1201–1225	3		1	4
1251–1275	5	1	1	7

Years	1P1	2P1	2P2	Tot.
1301–1325	3		1	4
1326–1350	1	2	1	4
1351–1375		1		1
Tot.	45	51	10	106

Tab. 36: Typologies of πύλαι listed in their corpora by Lake I–X and Spatharakis 1981.
1P1 = one-column layout, πύλη along the entire column; 2P1 = two-column layout, πύλη along one column only; 2P2 = two-column layout, πύλη along both columns.

Century	Majuscule %	Minuscule %
8th	2,88 % (17)	
8th/9th	0,51 % (3)	
9th	18,64 % (110)	1,02 % (6)
9th/10th	0,85 % (5)	0,34 % (2)
10th	19,32 % (114)	6,44 % (38)
10th/11th	0,68 % (4)	1,35 % (8)
11th	4,41 % (26)	43,56 % (257)
Tot.	47,29 % (279)	52,71 % (311)

Tab. 37: Lectionaries in majuscule and minuscule (eighth-eleventh centuries).

Majuscule	%
UPM	50
LM	20,7
SPM	17
BM	5,4
AM2	1,5
Other	5,4
Tot.	100

Tab. 38: Estimate of the majuscules used in lectionaries.
AM2 = Alexandrian majuscule, bimodular; LM = liturgical majuscule; BM = Biblical majuscule; SPM = sloping pointed majuscule; UPM = upright pointed majuscule

7 Decorated Liturgical Majuscule

In a study dedicated to Byzantine majuscules used as display scripts published in 1977, Herbert Hunger distinguished three different types of *Auszeichnungsmajuskel*: *Alexandrinische*, *Konstantinopolitanische* and *Epigraphische*.[480] In the first two types, Hunger identified the underlying structures of Alexandrian majuscule and Biblical majuscule respectively but as far as the graphic structure of the third type was concerned he invoked a majuscule found in epigraphy which, although it had never achieved canonical status, was easily recognisable as a distinct style. In the same year Hunger published an article entirely dedicated to the *Epigraphische Auszeichnungsmajuskel*, distinguishing its various manifestations on the basis of the degree of ornamentation found in the letters.[481] In this article he remarked how in the titles and initial letters found in certain manuscripts, above all theological and liturgical ones, from the tenth and the eleventh centuries, a new type of script appeared (which he called generically *Schnörkelschrift*), the basic structure of which was formed by so-called liturgical majuscule and which was characterised by an especially noteworthy use of decorative elements, each letter being accompanied by flourishes, curls, bows, leaves and crosses.[482] Hunger identified the substantive difference between this majuscule and the more ornate manifestations of *Epigraphische Auszeichnungsmajuskel* in the perfectly rounded forms—flawless circles which could have been drawn with a compass—of *epsilon*, *theta*, *omicron*, *sigma*, *phi* and *omega*, which are found in *Schnörkelschrift* but are unknown in the epigraphic display majuscule.[483]

Before Hunger, Kurt Weitzmann had shown interest in this display script, though only in passing. In connection with the initial letters found in the codices Vat. gr. 1613 (*Synaxarion*; end of tenth century.) and Vat. Urb. gr. 20 (John Chrysostom, *Homilies on St Matthew's Gospel*; copied by the monk Gregory in the year 992 CE), he used the term *Silhouetten-Ornamentik*, characterised by simple lines,

480 Hunger 1977a.

481 Hunger 1977b, 199–200.

482 Hunger cites the following manuscripts as examples of the script: Berol. Phillipps 1538; Marc. gr. I 8; Athon. Dionusiou 34; Baltimore W 524; Oxon. Canon. gr. 110; Paris. gr. 70; Kalabryta 1; Sin. gr. 204; Vindob. Suppl. gr. 50* and Theol. gr. 240.

483 According to Hunger 1977b, 200 n. 25, single round letters, drawn according to *Schnörkelschrift*, can be found in a number of codices, even though the display majuscules found in these follow different styles: for instance *omicron* in codex Athon. Dionusiou 588 (Pelekanidis / Christou / Tsioumis / Kadas 1974, fig. 281), or *epsilon* in manuscripts Vindob. Suppl. gr. 52, f. 76r (Buberl / Gerstinger 1938, pl. XXVI, 2) and Paris. gr. 230 (Weitzmann 1935, fig. 216).

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pearl motifs and arabesques.[484] Weitzmann traced the origins of this graphic type back to the beginning of the tenth century and singled out as the earliest example of the type the codex Mosq. GIM Vlad. 98 (Savva 96) (John Chrysostom, *Homilies on the Letter of St Paul to the Romans*, copied by the monk Nicholas in the year 917 CE).[485] Weitzmann also used the term *Perlschnurmuster*, in connection with other important manuscripts from the tenth century, indicating an evolution of this style of ornamentation with the addition of other vegetal elements as well as motifs in the form of chalices and hearts, modelled on the style of *Blütenblatt-Ornamentik*.[486]

Following Weitzmann, both Suzy Dufrenne[487] and Axinia Džurova[488] have used the expression *Perlschnur-Initialen* to refer to this *Auszeichnungsmajuskel*, distinguishing—in various manuscripts written in minuscule in the tenth century—different types on the basis of different combinations of the ornamental elements.[489]

This particular display majuscule has been, as this bibliographical survey shows, the one most frequently referred to both by historians of Byzantine illumination and Greek palaeographers, and in most cases the references have consisted in the identification of the majuscule in individual manuscripts or in groups of manuscripts which are more or less uniform in the style of writing or decoration (or both).

However, before examining the characteristics of the script, two preliminary comments are in order. First, the corpus of manuscripts which have been investigated consists of about fifty codices, identified from bibliographies. Thus an ex-

484 Weitzmann 1935, 30–32, and Weitzmann 1996, 37–38. On Vat. gr. 1613, see *Menologio* 1907; Der Nersessian 1940–1941; Ševčenko 1962; Ševčenko 1972; Spatharakis 1981, 16–17, figs 66–73. On Vat. Urb. gr. 20, see Franchi de' Cavalieri / Lietzmann 1929, pl. 18; Lefort / Cochez 1932, pl. 65; Lake VII (1937), no. 267, pls 473–374; Irigoin 1959b, 192–193; Follieri 1969, pl. 22; Belting / Cavallo 1979, 11, pl. 41b. See also Vogel / Gardthausen 1909, 94; RGK III (1997), no. 148.

485 Weitzmann 1935, 32. See Amfilokhij 1879, pls XII–XIII; Cereteli / Sobolevski 1911, pl. IV; Lefort / Cochez 1932, pl. 21; Lake VI (1936), no. 216, pls 377–378. See also Vogel / Gardthausen 1909, 361.

486 Weitzmann 1935, 14, 16–18, mentions the following manuscripts: Berol. Phillipps 1538; Paris. gr. 70; Paris. gr. 139 and Oxon. Canon. gr. 110.

487 Dufrenne 1981, 459; Dufrenne 1987, 47 n. 23, 55.

488 Džurova 2001, 72, 282.

489 The typologies identified by Dufrenne 1981, 459, and Džurova 2001, 72, are as follows: initials with stems and knots (Vat. gr. 73 and Marc. gr. Z. 53); initials with pearl strings or *Perlschnur-Initialen* (Paris. gr. 146, Paris. gr. 1419 and Vat. gr. 1615); initials with pearl strings with floral motifs or *blütenartige Perlschnur-Initialen* (Vat. gr. 364); initials with foliate motifs, such as palmettes together with braids or strings of pearls (Paris. gr. 629).

haustive census of all the available examples is not the aim of this present study. Secondly, the reasons which have led me to adopt the term 'decorated liturgical' for this display majuscule, in preference to the terms used by Hunger (*Schnörkelschrift*) and by Weitzmann (*Silhouetten-* and *Perlschnur-Initialen*). As Hunger pointed out, liturgical majuscule is the script which underlies this display majuscule but the crucially distinguishing criterion for identification is the greatly enhanced decorative element. As we shall see, in contrast to a generic use of liturgical majuscule as display script,[490] in this particular majuscule the set of ornamental elements used for each single letter is very highly developed. Furthermore, and again in contrast to liturgical majuscule, this 'decorated' variant appears to have been used exclusively as a display script to indicate separate sections of the text, so for titles, initial letters and *incipits*. The exceptions to this rule consist of a handful of manuscripts in which single letters of decorated liturgical majuscule are inserted, irregularly, into the liturgical majuscule used for the text: this is the case for example in several pages of the manuscripts Oxon. Bodl. Canon. gr. 92 (*Gospel lectionary*, eleventh century);[491] Vindob. Suppl. gr. 122 (*Gospel lectionary*. eleventh century);[492] Paris. Coislin 31 (*Gospel lectionary*, tenth–eleventh centuries).[493] These characteristics suggest that a new name for this script would express more accurately than Weitzmann and Hunger's terminology, exclusively focused on ornamentation, does the correct relationship from a palaeographical point of view between this script and the liturgical majuscule which underlies it while at the same time clarifying the structural and functional differences between the two.

Let us now look at the characteristics by describing above all the different manifestations which have so far been identified. These can be roughly grouped into three branches, corresponding to the main categories of liturgical majuscule:[494]

490 On liturgical majuscule used as a display script, see Orsini 2013, 44–52, and paragraph 6.3 of the *Liturgical Majuscule* chaper in this volume.

491 Hutter 1982, no. 68, 101–103, figs 253–279.

492 Buberl / Gerstinger 1938, 110 and pl. XLVI, 3; Hunger / Hannick 1994, 209.

493 Omont 1892, pl. 22; Hatch 1939, pl. 76; Cavallo 1967a, 123–124; Cavallo 1977a, 108 and pl. 45; Devreesse 1945, 26; Devreesse 1954, 29. In the first two manuscripts the text was copied in a liturgical majuscule the structure of which was based on pointed forms and with a conspicuous, if irregular, introduction of some letters (*epsilon, theta, omicron, sigma, omega*) of round design within a square module; in the third manuscript the text was copied in a monumental liturgical majuscule with contrasting modules and enlarged round letters. Unlike the two other manuscripts, in Paris. Coislin 31 the ornate liturgical majuscule is used as a display script.

494 On the different categories of liturgical majuscule, see Orsini 2013, 40–41, and paragraph 6.2.4 of the *Liturgical Majuscule* chapter in this volume.

A. modular contrasts (square module: *epsilon, theta, mu, nu, omicron, sigma, omega*, with possible enlargement of the forms; rectangular module, with the base shorter than the height: *alpha, beta, gamma, delta, eta, kappa, lambda, pi, upsilon*); examples are Marc. gr. I 8 (*Four Gospels*; ninth–tenth centuries),[495] Marc. gr. I 18 (*Four Gospels*; tenth century),[496] and Oxon. Bodl. Auct. T. inf. II. 6 (*Gospel lectionary*; tenth century; Fig. 80);[497]

B. unimodular, with letters all written within a rectangular module, including *epsilon, theta, omicron, sigma, omega*, which, even though they are laterally compressed, still preserve a rounded design; see Messin. F.V. 18 (*Four Gospels*; ninth–tenth centuries):[498] Baltimore W 520 (*Gospel lectionary*; tenth century);[499] Hierosol. Μεγάλη Παναγία 1 (*Gospel lectionary*; 1060–1061 CE);[500]

Fig. 80: Oxon. BL Auct. T. inf. II. 6, f. 73r.

495 Weitzmann 1935, 15–16, figs 92–94; Nordenfalk 1938, pls 8–10; Hatch 1939, pl. LXII; Cavallo 1977a, pl. 33; Mioni 1967, 13–14; Gentile 1998, 137.

496 Weitzmann 1935, 8, figs 39–41; Mioni 1967, 24–25; Mioni / Formentin 1975, pls XXXIII, 2; Furlan 1978, figs 20–23, pl. 3; Agati 1992, 134–144, pl. 95.

497 Weitzmann 1996, 80, fig. 633; Hutter 1977, 8–9, no. 4, figs 27–30.

498 Fraccaroli 1897, 334–335; Vogel / Gardthausen 1909, 111; Mioni 1965, 143; Perria / Iacobini 1994; Iacobini / Perria 1998, pl. XXIII; Iacobini / Perria 2000; Orsini 2005b, 273–275. Three scribes collaborated in the production of this codex. Scribe A: ff. 10v, 14r–v, 80v lines 18–19 (a minuscule script, squarish in form), 81v, 126v (a minuscule similar to *bouletée*), 2r–10r, 12r–13v, 82r/v [Alexandrian majuscule and Biblical majuscule]; scribe B: ff. 15r–80v line 17, 83bisr–122v (calligraphic minuscule, slightly sloping to the left and of roundish design); scribe C: ff. 83r–v, 123r (oblong minuscule), 123v–125v (upright pointed majuscule). The display majuscule is only found on ff. 14r (scribe A) and 83r (scribe C), containing the titles to the *Gospels*.

499 Clark 1937, 347–348, pls LIII, LXXI; Hatch 1939, pl. 68; Spatharakis 1981, 73, no. 301, pl. 528; Džurova 2001, 75.

500 Vogel / Gardthausen, 211; Lake V (1936), ms. 213, pl. 367; Spatharakis 1976, 57–59, fig. 26; Hunger 1977b, fig. 12; Galavaris 1979, fig. 102; Spatharakis 1981, no. 72, figs 127–129; Panayotis 2002, 24–27, no. 1 with pl. at page 27.

C. hypertrophic ornament and monumental design, occasionally enhanced by the enlargement of letters in a square module and rounded design (*epsilon, theta, omicron, sigma, omega*); examples are Berol. Phillipps 1538 (*Hippiatrica*, tenth century; Fig. 81–82);[501] Vat. gr. 1613; Oxon. Canon. gr. 110 (*Acts* and *Epistles*; tenth century).[502]

Fig. 81: Berol. Phillipps 1538, f. 39r.

Fig. 82: Berol. Phillipps 1538, f. 327r.

501 Studemund / Cohn 1892, 55; Cohn 1900, 158–160; Kirchner 1926, 16; Weitzmann 1935, 16–18, figs 104–115, and Weitzmann 1996, 28; Irigoin 1959b, 180–181; Weitzmann 1971, 194–195, fig. 176; Galavaris 1989, 334–335, fig. 2; McCabe 2007, 23–27, pls 3–5.

502 Weitzmann 1935, 13–14, figs 71–77; Hutter 1977, no. 3, figs 11–26; Agati 1992, 117–118, pl. 71; Džurova 2001, 73, 77, 78.

Fig. 83 and 84: Marc. gr. Z. 360, f. 129r and f. 283r.

On occasion more than one of these tendencies can be found in a single manuscript: one of numerous examples of this combination is Paris. gr. 70 (*Four Gospels*; tenth century),[503] which includes titles written in B (f. 9r) and C (f. 191r).

The chiaroscural contrast is contrived and at times highly accentuated, though there exist examples in which the pen strokes are thin or barely contrasted (see, for example, Berol. Phillipps 1538; Marc. gr. Z. 360 [*Menologion*; tenth century; Fig. 83–84];[504] Vindob. Theol. gr. 240 [*Four Gospels*; end of tenth century.];[505] Sin. gr. 204 [*Gospel lectionary*; tenth to eleventh centuries];[506] Athen. gr. 57 [*Four Gosepls*; second half of tenth century])[507]. Sometimes the solemnity of the graphic design is emphasised with the use of coloured or gold ink.

503 Ebersolt 1926, pls 38.2–3, 40.1; Weitzmann 1935, 14–15, figs 78–84, 87–88; Spatharakis 1981, pl. 41; Agati 1992, 118–119, pls 3, 72; Džurova 2001, 69, 72, 73, 74, 78.

504 Agati 1992, 219, pl. 12.

505 Buberl / Gerstinger 1938, pl. I, 3–4; Hunger / Lackner / Hannick 1992, 134–136; Džurova 2001, 78.

506 Weitzmann / Galavaris 1990, 42–47 (with bibliography), figs 92–108, colour plates III–VIII; Justin 2006, 57–77, figs 56–69.

507 Marava-Chatzinicolaou / Toufexi-Paschou 1978, 108–117, figs 217–231; Džurova 2001, 83, 87, fig. 94.

The really distinctive feature of this script, however, as has been pointed out, is the whole repertoire of decorative, geometric and non-figurative elements taken as a whole, used in varying proportions and amalgamations and continuously modified: small buttons and pearls, short thin horizontal strokes (on vertical strokes) or oblique strokes (both on oblique strokes drawn in the opposite direction and horizontal strokes), curls and hooks (especially on letters with curved strokes); to these can be added various vegetal elements, such as heart-shaped leaves (at the lower ends of certain letters) or trilobate terminations. At times these ornaments are not simple additions to the letters but form part of the strokes which compose them in terms of their structure (see for example the already cited manuscripts Vat. gr. 1613 and Athen. gr. 57). The way in which these elements are organised in each letter, however, changes not only from one manuscript to another but also from one letter to another within the same manuscript: buttons and pearls alternate with short thin lines and/or symmetrically arranged double hooks; curls and hooks, sometimes doubled, extend from the upper and lower curves of the letters *epsilon*, *theta* and *omicron*. These morphological variants found in each letter are so numerous that it is difficult to classify them as part of a fixed scheme.

As this is a display majuscule, it is important to pay attention to the scripts used for copying the texts in which it is found. As an indication of prevailing patterns, we can say that *bouletée* minuscule is the script which is predominantly found, in both its 'canonical' versions *élancée* and *italique*.[508] However, other minuscules can also be found, such as *rotonda*[509] and *oblunga*,[510] *Perlschrift*[511] and informal minuscule,[512]

508 In various parts of her monograph on *bouletée* minuscule (Agati 1992, 117–125, 143–144, 201–214, 219), Maria Luisa Agati describes display majuscule. It can be found in the titles and initials of some manuscripts written in so-called 'canonical' *bouletée* (Oxon. Canon. gr. 110; Paris. gr. 70; Paris. gr. 139; Paris. gr. 676 and Marc. gr. I 18); in the production of *bouletée élancée*, in all those manuscripts attributable to scribe A (Athon. Vatopediou 108; Vat. Barb. gr. 310; Kalabryta 1; Leukos. 25; Mosq. GIM Vlad. 99 [Savva 99]; Paris. gr. 480; Paris. gr. 713 + Paris. Suppl. gr. 240, ff. 238r–241v; Patm. 43 and 44); in some manuscripts produced by scribe B, such as Marc. gr. Z. 360; Vat. Ottob. gr. 4 and Paris. Coislin 46, which—unlike the other codices produced by this scribe, which are written in *Alexandrinische Auszeichnungsmajuskel*—show this typical round majuscule with decorative pearls or curls: in the Marciana manuscript the display majuscule was used to write the titles, whereas in the Ottobonian and the Coislinian manuscripts it was used for the small initials. With regard to *bouletée italique*, display majuscule is found in the titles of Oxon. Auct. T. inf. II. 6, a manuscript not discussed in Agati 1992.

509 For instance in Mosq. GIM Vlad. 185 (Savva 313), 992 CE: Amfilokhij 1879, pl. XXI–XXIII; Vogel / Gardthausen 1909, 431; Cereteli / Sobolevski 1911, pl. X; Lefort / Cochez 1932, pl. 64; Lake VI (1936), no. 221, pl. 391.

510 For instance in Mosq. GIM Vlad. 98 (Savva 96), 917 CE.

even though, at least in the light of the present state of research, they appear to play a minor role. It is rarer to find this display script associated with texts written in majuscules; there are only a few cases where it is used with upright[513] and sloping pointed majuscule,[514] Biblical majuscule,[515] and liturgical majuscule.[516]

As for the textual content of the manuscripts, this majuscule was almost exclusively used for codices of the *New Testament* (*Four Gospels* and *lectionaries*); it is found in a few manuscripts containing the *Old Testament* or homilies and only very sporadically in secular texts.

This palaeographical and textual information reveals an important aspect of decorated liturgical majuscule: employed specifically to highlight titles, *incipits*, and selected portions of the text, it was devised for a purely symbolic role, almost as if its allotted task was to translate into visible form, in the graphic architecture of the page and with the support of the decorative elements in the strict sense, the manifestation of the divine. Its symbolic role was in effect the same as that of public and monumental writing—as seen on mosaics and in the frescoes of churches, in the silver and ivory objects used in the liturgy, and in icons, from at least the sixth century[517]—which can be seen (as far as the development of certain ornamental forms, the taste for rounded designs and the decorative elaboration of the letters are concerned) one of the models which inspired the creation of liturgical majuscule in general, in the context of which the display decorated variant emerged.

511 For instance in codices Athen. gr. 94, tenth century: Marava-Chatzinicolaou / Toufexi-Paschou 1978, figs 44–48; Athon. Koutloumousiou 61, second half of the eleventh century: Spatharakis 1981, no. 88, pl. 156; Vat. gr. 1613, end of the tenth century.

512 For instance in Matrit. Res. 235, mid-tenth century: Weitzmann 1996, 76–77, fig. 616; Dufrenne 1987, 39–43, pl. 6.

513 Among other manuscripts, see Baltimore W 520, tenth century: Hatch 1939, pl. 68; Spatharakis 1981, pl. 528; Džurova 2001, 75; Paris. gr. 280, end of the tenth century: Omont 1892, pl. XIX; Hatch 1939, pl. LXXIII; Cavallo 1977a, pl. 25; Crisci 1985, 123 n. 60, 124, pl. 5b.

514 Athon. Lavra A 92, tenth century: Weitzmann 1935, figs 179–180; Spatharakis 1981, pl. 527; Sin. gr. 497, tenth/eleventh centuries: Nikolopoulos 1999, pl. 40.

515 Marc. gr. I 8, ninth/tenth centuries.

516 Athon. Iviron 1, tenth/eleventh centuries: Pelekanidis / Christou / Tsioumis / Kadas 1975, 293–295, figs 1–6; Paris. Coislin 31, tenth/eleventh centuries; Sin. gr. 204, tenth/eleventh centuries.

517 Orsini 2012b.

Fig. 85: Madaba, Church of the Apostles, central medallion.

In this connection, it should be pointed out that isolated individual elements characteristic of decorated liturgical majuscule in its earliest phase can be found in this wider context of graphic production, beyond scribal culture: for example, in several sixth and seventh-century mosaics in Jordan we find the motifs of pearls and small buttons attached to the letter-strokes, for instance *nu* in the Church of the Apostles in Madaba (578 CE; Fig. 85)[518] and the crypt of St Elianus (595/596 CE)[519] (*nu*, *kappa*, *tau*, *upsilon*, *epsilon*, *eta*), or St George's Church in Khirbat Al-Samra near Bostra (seventh century)[520] (*nu*).

518 Piccirillo 1993, 96–108, figs 78, 80.
519 Piccirillo 1993, 124–125, figs 124, 125, 131, 133.
520 Piccirillo 1993, 306, figs 593, 601–602.

What we find in the ivory staurotheke attributed to the tenth century (probably before 963–969 CE)[521] kept in the treasury of San Francesco in Cortona is different (Fig. 86): on the back of the reliquary panel two inscriptions remain (one in the form of a cross in the centre of the panel and the other on the borders) inscribed with all the characteristics of decorated liturgical majuscule. This is a singular example of a precise correspondence between the manuscript and non-manuscript manifestations of this display script, which can be attributed to a cultural climate in which there was a conscious exchange of ideas between the two spheres.

Fig. 86: Cortona, Church of San Francesco, ivory staurotheke, verso.

521 Lipinsky 1967a and Lipinsky 1967b, 59–65, fig. 2; Cutler 1994, 20–21, 36–37, 125–126, 192–193, 214–215, 221, 235, 251, pls I–II, figs 37–38, 140, 232; Guillou 1996, 16–18, no. 15, pl. 5; Cutler / Spieser 1996, 167–168, figs 126–127. On the dating, see Mango 1998, 130.

In the eleventh century there are two more examples, in both of which—as in the earliest period—only single forms of decorated liturgical majuscule are found: the mosaic depiction of St John Chrysostom in the *katholikon* of St Luke's Monastery in Phocis (*omega*)[522] and the fresco of St Zosimus in the Church of Panagia Phorbiotissa in Asinou on Cyprus (*zeta* and *omega*).[523]

In conclusion, we should examine briefly the chronology of the manuscripts used for the study of decorated liturgical majuscule. The manuscripts of certain date are Mosq. GIM Vlad. 98 (Savva 96) (917 CE); Oxon. Bodl. Auct. E. 2. 12 (St Basil, *Commentary on Isaiah*, 953 CE);[524] Mosq. GIM Vlad. 185 (Savva 313) (John Climacus; 992 CE); Escorial. T.III.3 (gr. 163) (John Damascene, *Life of Barlaam and Josaphat;* 1057 CE);[525] Hierosol. Μεγάλη Παναγία 1 (1060/61 CE); Lond. Lambeth Palace Library MS. 1214 (*Ottoteuch*; 1103 CE).[526] For the initial period, however, two manuscripts can be cited which are attributable on palaeographical evidence to the period between the end of the ninth century and the beginning of the tenth century, Marc. gr. I 8 and codex 18 of the 'Fondo Vecchio' of the Biblioteca Regionale Universitaria in Messina: the text of the first is written in a late artificial Biblical majuscule, while the second was copied by three scribes in a minuscule which oscillates between square and rounded and, on two pages, is close to *bouletée*. For the later period there is Vat. gr. 1231 (*Job*),[527] attributable to the first half of the twelfth century, the text of which was copied by the scribe John Tarsites and commissioned by Leo Nikerites, *protonobelisimos*, *megas doux* and *anagrapheus* of Cyprus,[528] and which can be seen as a late example of this display majuscule, even though sporadic and isolated revivals can be identified in later centuries (such as, for example, some initials in Paris. gr. 134 [*Catena on Job*], from the thirteenth century)[529]. Nevertheless, although this

522 Cutler / Spieser 1996, 40, fig. 20. No record relating to the foundation of the *katholikon* survives: see ODB II (1991), 949–950 (with essential bibliography).

523 Cutler / Spieser 1996, 289, fig. 232. According to the dedicatory inscription by *magistros* Nikephoros Ischyrios (d. 1115 CE), the church of Panagia Phorbiotissa was founded in 1105/1106 CE: see ODB I (1991), 207–208 (with essential bibliography).

524 Lefort / Cochez 1932, pl. 32; Lake II (1934), no. 54, pls 98–99; Weitzmann 1935, 44, fig. 297; Hutter 1977, 14–15, no. 9, figs 54–56.

525 Vogel / Gardthausen 1909, 123; Graux / Martin 1891, 30–31, pl. IX.

526 Vogel / Gardthausen 1909, 174–175; RGK I (1981), no. 166; Spatharakis 1981, no. 118, pl. 224. The scribe of the manuscript, Ioannes Koulix, also copied Paris. Suppl. gr. 1262 (*New Testament*), on 31 August 1101 (RGK II [1989], no. 222).

527 Cutler 1974, 129–150, figs 2, 6, 9, 12, 14, 27, 28; Spatharakis 1981, no. 114, pls 217–218. See Vogel / Gardthausen 1909, 201; RGK III (1997), no. 308, pl. 164.

528 Leo Nikerites was also the patron of Lond. Lambeth Palace Library, MS. 1214, mentioned above.

529 Parani 2002, pl. 194.

script can be seen as lasting from the end of the ninth century to the twelfth century, its period of flourishing must be limited to the tenth century, when the majority of the most representative manuscripts containing the script were produced such as Berol. Phillipps 1538, Marc. gr. I 18, Oxon. Canon. gr. 110, Paris. gr. 70, Paris. gr. 139 (*Psalterium*; tenth century),[530] Marc. gr. Z. 360, Vindob. Theol. gr. 240. Most of these belong to different trends in illumination during the period of the so-called Macedonian Renaissance, with links to production in Constantinople and regions of western Asia Minor such as Bithynia.

Finally, when we consider the dated manuscripts listed above, it is clear that there is no line of specific development in the sense of progressively developing forms, structures and graphic organization, nor could there be given the atemporal iconic values the script embodies. Neither do the richness and complexity of the ornamentation lend themselves to being used as criteria for the dating of manuscripts: instances of now sober and now elaborate decoration can be found all through the period in which display majuscule was used. It should however be noted that manuscripts from the late eleventh century onwards show, at a general level, a predilection for laterally compressed modules, pointed rather than round designs, and for the addition of ornamental vegetal motifs at the lower ends of certain letter strokes.

530 Weitzmann 1929; Dufrenne 1991, 307, 317, 318, pl. 12; Agati 1992, 120–121, pl. 73.

Glossary of Palaeographical Terms employed in the Text

Structure (Italian: 'tratteggio')

This refers to the number, sequence and direction of strokes which make up each letter. This determines not only the form of the letter but also the possible modifications of it. The dynamic aspect of writing, in other words, the relationship between the number of strokes and the speed of execution (see *ductus*), affects the structure by encouraging a reduced number of strokes, with a merging of two or more elements (in a single letter or in several letters in succession), a simplification of the structure and a modification of the original form of the letter.

In palaeographical studies in French and English, the Italian term 'tratteggio', here translated as 'structure', corresponds to *ductus*.

Ductus

The term *ductus* here indicates the rate of speed of writing, in other words the dynamic dimension of writing or the time needed to write the signs and, as a result, the effect this has on the final appearance of the script. Seen in absolute terms, it is not possible to quantify the speed of writing since this depends on a variety of concrete factors which are unavailable to us (such as the enviromental and immediate conditions of the act of writing, the scribe's abilities, the materials and instruments which were used, the graphic types adopted, etc.); what it is possible to evaluate is the effect of speed on the final appearance of the writing: the more strokes in single letters or in a succession of letters tend to merge in the smallest possible number of movements the greater the speed of writing. It is usual to distinguish two extremes of speed: set *ductus*, in other words written with a slow *ductus*, and cursive *ductus*, written with a fast *ductus*.

Writing trace (Italian: 'tracciato')

The term 'writing trace' refers to the quality of the stroke which defines the design or form of each single letter, in other words the external appearance ('form') they have when they have been written. The writing trace can be thick or thin, uniform and contrasted (according to variations in the thickness of the traces), rounded or angular. The writing trace ('tracciato') must be not be con-

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fused with the structure ('tratteggio'): the latter is a primary structural element, while the former refers to the stylistic characteristic of the written signs. Letters with the same structure can be written with a different writing trace (uniform or contrasted, rounded or angular, etc.). The writing trace also depends on material and dynamic factors.

Module (Italian: 'modulo')

The term 'module' refers to the shape and relative dimensions of the letters. The shape is determined by the relationship between the height and width of each individual letter, which can be linked to geometric figures: square module = height is equal to width; rectangular module with long side on base line = height is less than width; rectangular module with short side on base line = height is greater than width. The script as a whole is unimodular when all letters are uniform in dimension and shape, and can be inscribed in a square (there is no unimodular script with all letters inscribed in a rectangle); the script is bimodular when there is a contrast between square and rectangular letters: this contrast is often determined by the narrow letters *epsilon, theta*, *omicron* and *sigma*, and the broad letters such as *delta, eta, mu, nu, pi* and *omega*.

Writing angle (Italian: 'angolo di scrittura')

The writing angle measures the position of the writing instrument compared to the base line, since this position determines the thickness of the strokes which make up the letters, the so-called 'chiaroscuro', or shading.

Angle of slope (Italian: 'angolo di inclinazione della scrittura')

This refers to the angle of inclination of the letters in relation to the base line of the writing: an angle above 90° means the writing inclines to the right of the axis of the letters, whereas below 90° (a fairly rare occurrence) means that it inclines to the left of the axis. This parameter can be useful when applied to the analysis of formal scripts (styles or canons) in which, as a distinguishing characteristic, there is an inclination of the axis of the letters (e.g. sloping pointed majuscule).

Stylistic class (Italian: 'classe stilistica')

A 'stylistic class' is a set of writings sharing a general framework, form and structure (i.e. the number, sequence and direction of strokes) of some (but not necessarily all) letters; moreover, they may contain graphic variants of the same letter. The term 'stylistic class' attempts to recognise a distinctive writing which does not follow rigid, fixed rules.

Style (Italian: 'stile')

Individual 'styles' are formed within a 'stylistic class', when the most frequent and most typical characteristics are selected and organized in a graphic structure with well-defined and homogeneous features.

Canon (Italian: 'canone')

Texts constituting a 'canon' display the repetition of a style over time, i.e. canonical styles lose their original spontaneity and repeat themselves nearly unchanged over a period of several centuries, for extra-graphic, historical and cultural reasons. Even if a text within a canon has a unitary and closed graphic structure, it may also have an internal dynamic, with chronological and geographical differences. Moreover, when a canon comes into conflict with contemporary tastes and graphic techniques, it becomes difficult to maintain it in use, and for this reason the graphic rules are no longer respected: the shapes of individual letters are repeated, but not their structure (i.e. the number, sequence and direction of strokes), alongside the addition of extraneous elements, especially those with aesthetic functions.

Normative script (Italian: 'scrittura normativa')

In a recent publication Cavallo 2008, 15, has questioned the very concept of canons, since such terminology is 'too rigid for graphic forms which are lacking in any theoretical basis of fixed rules which need to be followed, and which also are not required models but simply represent one possible choice among others'; for this reason he now prefers the term 'normative scripts', meaning those scripts in which certain characteristics define a recognizable physiognomy for a certain (undefined) period, without however forcing them into the framework of a canon defined by fixed and immutable rules.

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In a recent publication Cavallo 2008, 15, has questioned the very concept of canons, since such terminology is 'too rigid for graphic forms which are lacking in any theoretical basis of fixed rules which need to be followed, and which also are not required models but simply represent one possible choice among others'; for this reason he now prefers the term 'normative scripts', meaning those scripts in which certain characteristics define a recognizable physiognomy for a certain (undefined) period, without however forcing them into the framework of a canon defined by fixed and immutable rules.

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